Home An Argus Specialist Publication COMPOSITION SPECIAL SUPPLEMENT No. 72 July 24-31, 1984 WEEKLY 45p

More

WSX

Computing
Read the
latest news
and start
learning
MSX BASIC

WIN

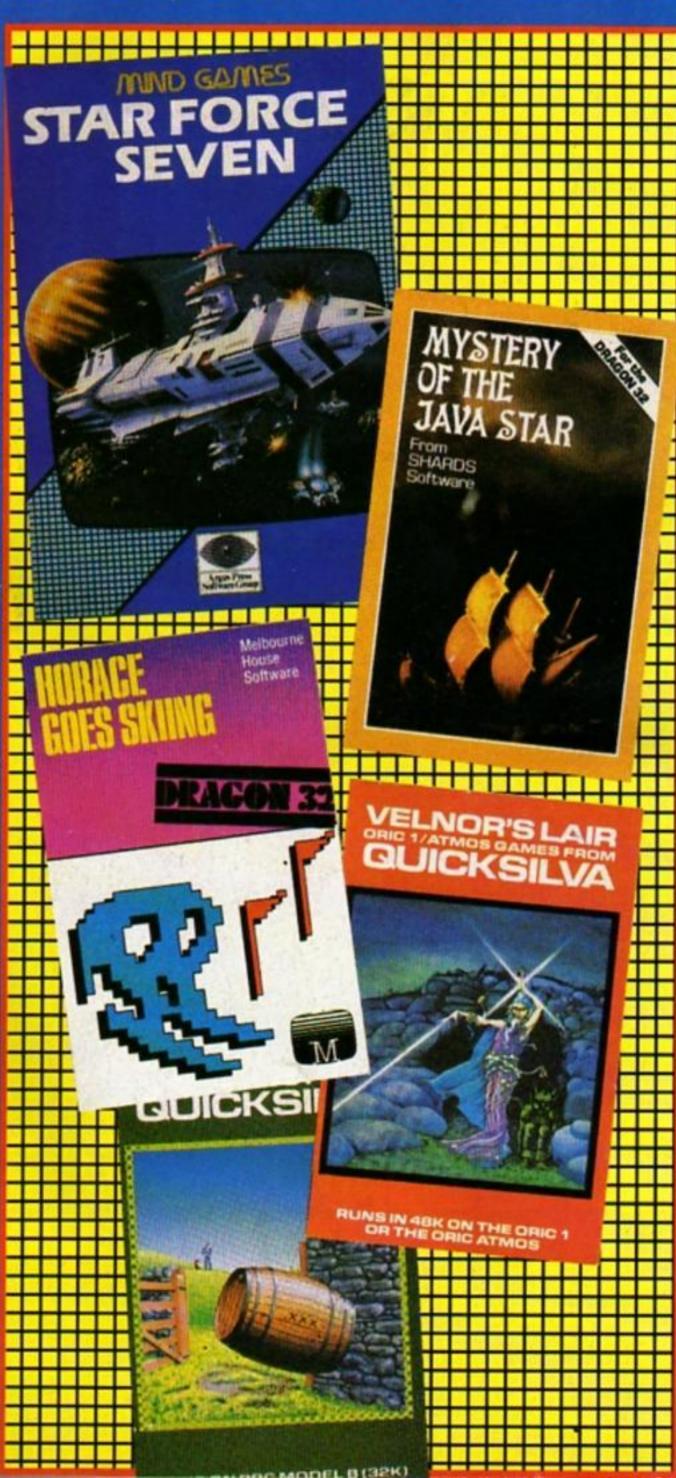
a weekend for two in Paris courtesy of

OPTIONS

Software reviews for: spectrum, cBM 64, BBC/Electron, Dragon, Oric/Atmos, TI-99/4A

Spectrum
program
Bowl googlies and hit them
for six

TI-99/4A
program
See how you
grow as
you eat



Copied tapes seized judge told

Cassette copying equipment was seized in a raid on a doctor's home, a High Court judge was told.

Microdeal, the Cornish-based software company, had been granted a "search and seize" order at a private hearing.

It enabled the company to search the premises of Dr T. Mohamed in Blackburn and take away any offending copyright material.

Microdeal alleges that Dr Mohamed and Mr T. Mohsan — believed to be Dr Mohamed's 14-year-old brother — have been copying Dragon games such as Eight Ball, Katerpillar Attack, Scarfman and Space War.

Miss Mary Victoria, for Microdeal, told Mr Justice Mervyn Davies that the company had obtained "quite a lot of interesting material" when the order was executed.

She read a sworn statement Continued on page 5

School's over for Chris

A schoolboy is dropping his 'A' level course to invent computer games. Christopher Kerry, 17, of Batemoor, Sheffield, wrote the game Jack and the Beanstalk, currently high in the charts.

The game achieved top status and popularity even without advertising. And the company marketing the game, Liverpool's House of Thor, is now planning a massive promotion for it.

Now Christopher, who feared he would be joining the dole queue, may earn tens of thousands of pounds in royalties.

Christopher was studying physics, chemistry and computer studies at Jordan-thorpe school. He left before the end of the summer term of his first year in the sixth form. Assistant head, Mr Heath said: "Christopher is a very capable young man with plenty of initiative. We wish him well!"

Christopher is now signed up Continued on page 5





The Green Ashby De La Zouch Leicestershire LE6 5JU E LANGUA STREET

BUY THIS SPACE

TO ADVERTISE YOUR LATEST PRODUCTS! Ring John or Stuart on 01-437 0626, NOW!



BUY THIS SPACE

TO ADVERTISE YOUR LATEST PRODUCTS! Ring John or Stuart on

01-437 0626, NOW!

REGULARS

				T		1		1	4.3					100
News														. 5
Options competition This is your chance to win a two in Paris	onc	e-ii	n-a	-lif	eti	m	e t	rij		a v	vec	ek	enc	. 7 I for
Software charts Find out what the new smargames														
Classified ads sta	rt (on												28
THE PART AND THE PARTY AND A	5.55		11										(A	13.6

PROGRAMS

48K Spec	trum	pro	gr	am	 	8
				world-famous		

TI-99/4A programs...... Gobble up your food - the more you eat, the more you grow

SOFTWARE REVIEWS

Puzzles and adventures	0
All-action arcade aces	5



Here's the third issue of MSX Computing, presented to you free with Home Computing Weekly. This is what's in store for you:

- Insight into who's planning what when
- Start learning how to program MSX BASIC

Get ahead and stay ahead with Home Computing Weekly.

Editor: Paul Liptrot Assistant Editor: Liz Graham Designer: Bryan Pitchford

Managing Editor: Ron Harris Group Editor Elspeth Joiner

Advertisement Manager: John Quinn Assistant Advertisement Manager: Stuart Shield

Divisional Advertisement Manager: Coleen Pimm Classified Advertising: Debra Stupple Chief Executive Jim Connell

Argus Specialist Publications Ltd. No.1 Golden Square, London W1R 3AB. 01-437 0626

Home Computing Weekly is published on Tuesdays. Subscriptions and back issues: Infonet Ltd, 10-13 Times House, 179 Marlowes, Hemel Hempstead, Herts HP1 1BB. Trade distribution: Argus Press Sales and Distribution Ltd, 12-14 Paul Street, London EC2A 4JS. 01-247 8233. Printed by Alabaster Passmore & Sons, Ltd, of London and Maidstone, Kent. Design and origination: MM Design, Circus House, 26 Little Portland Street, London W1N 5AF

FOR THE BEST

Packaged in Audio Wallets OVENTUREMANIA PENESTA THE STARS

ADVENTUREMANIA. (BASIC) NO COMMAND MODULE NEEDED. HCW GAVE THIS FULL GRAPHIC AND TEXT ADVENTURE 4 STARS. CAN YOU DISCOVER THE ULTIMATE QUEST IN THIS SPECTACULAR MISSION. 30 LOCATIONS

MANIA, (BASIC) NO COMMAND MODULE NEEDED. HCW GAVE 5 STARS AND SAID "I WOULD CERTAINLY BUY MANIA" FULLY GRAPHIC AND TEXT. CAN YOU SURVIVE IN MANIA AND ESCAPE TO THE CORRIDORS OF TIME.

LIONEL AND THE LADDERS. EXTENDED BASIC CARTRIDGE NEEDED. THE VERY BEST SPRITE GRAPHIC ADVENTURE YOU HAVE EVER SEEN ON YOUR TI-99/4A. HELP LIONEL AS HE JOURNEYS THROUGH THE LABYRINTH IN SEARCH OF HIS PRINCESS. BUT MAKE SURE HE DOES NOT GET CAUGHT. CAPTIVATING AND SPELLBINDING. FOUR STAR REVIEW VOL 68

BENEATH THE STARS. (BASIC) FULL ARCADE ACTION. 9 CONTROL KEYS. FIVE SKILL LEVELS. HALL OF FAME. SUPER ANIMATION. A FAST ACTION SPACE GAME.

AVAILABLE END JULY

SUPER ANIMATED UNDERSEA ADVENTURE **BO LOCATIONS**

At your dealer now or ~

Mail order by return post free! Send PO/Cheque to:



SAE + 25p

FOR OUR CATALOGUE

Games to remember from

Telephone 05806 4726

Cranbrook Road, Tenterden, Kent TN30 6UJ





ALL SOFTWARE £4.99 SOCCER SUPREMO

SOCCER MANAGEMENT GAME, CONTROL YOUR SQUAD OF PLAYERS, THEIR RATING, FINANCE, ETC, IN ORDER TO TAKE THEM FROM THE 4TH DIV TO CHAMPIONS OF 1ST DIV. HCW 5 STAR RATING.

PIRATE ISLAND

A BOARD STIMULATION FOR TWO PLAYERS. 10 DIFFICULTY LEVELS. GATHER TREASURE AND RETURN TO HOME PORT. HCW 5 STAR RATING.

ENGLAND V WEST INDIES IN A LIMITED OVERS MATCH, YOU STATE NO. OF OVERS AND CONTROL TEAM SELECTION. ABILITY TO CHANGE DATA OF TEAMS AND PLAYERS OF YOUR CHOICE. FOR ONE OR TWO PLAYERS. HCW 4 STAR RATING.

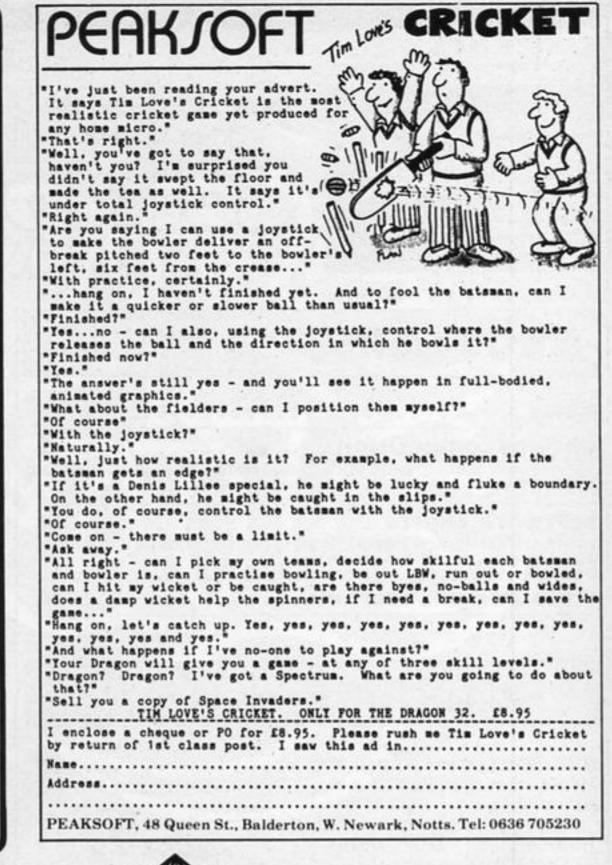
SAE FOR CATALOGUE

DROMEDA SOFTWARE 56 WELLS ST, HASLINGDEN.

ROSSENDALE, LANCASHIRE BB4 5LS

DISCOUNT SPECTRUM SOFTWARE

95
50
95
95
95
75
50
_
Ρ.
Γ.
10000





8 CLARE DRIVE, THRAPSTON, NORTHANTS NN14 4TA TEL: (08012) 3404

HE LATEST SOFTWARE FROM BRITAIN'S NO. 1 MAIL ORDER CO. AT DISCOUNT PRICES AND GET FREE MEMBERSHIP OF THE SOFT TOUCH CLUB!!

TOP 25 CHART TITLES

1	TORNADO	SPE	4.95	13	SHEEP IN SPACE	CBM	6.50
2	SABRE WULF	SPE	8.95	14	HOUSE OF USHER	SPE	5.99
3	VALHALLA 64	CBM	12.95	15	ENCOUNTER	CMD	8.99
4	LORDS MIDNIGHT	SPE	8.95	16	BEAKY/SNATCHERS	SPE	5.50
5	HULK	SPE	8.95	17	JACK BEANSTALK	SPE	4.95
6	BEACHHEAD	ACC	8.95	18	SON OF BLAGGER	CBM	6.95
7	MUGSY	SPE	5.95	19	TITANIC	SPE	6.99
8	ARABIAN KNIGHTS	CBM	5.99	20	FIGHTER PILOT	SPE	6.95
9	WAR OF WORLDS	SPE	4.99	21	STAR TROOPER	CMD	5.99
10	KOSMIC KANGA	SPE	4.95	22	CAVELON	SPE	5.90
11	PSYTRON	SPE	6.95	23	JET SET WILLY	SPE	4.70
12	HULK	CBM	8.95	24	ANTICS	SPE	5.99
		25	LOCO	CBM	6.95		

100's MORE TITLES IN STOCK - WRITE OR PHONE FOR FREE CATALOGUE OF SOFTWARE & ACCESSORIES FOR THE ATARI, BBC, COMMODORE 64, DRAGON, ORIC, SPECTRUM, ZX81 + ELECTRON, VIC20, TI99a & TRS80.

NameComputer	
Address	
I enclose cheque/PO for £payable to SOFT TOUG	CH for:
1	
2	
POSTAGE & PACKING FREE (OVERSEAS PLEASE ADD £1)	HCW/72

Tapes

From front page

by the solicitor who carried out the order in which he said that Dr Mohamed had "readily admitted" copying Microdeal's tapes and that he had found recording equipment, blank tapes and tapes which had been

Nothing, however, had been found at the boy's home.

Neither Dr Mohamed or Mr Mohsan were present or represented in court.

But Miss Vitoria said Microdeal's solicitors had received a phone call from Dr Mohamed denying all knowledge of the matter.

The judge agreed to continue an order banning Dr Mohamed from infringing Microdeal's copyrights until a further hearing last Friday. He refused to make any order against Mr Mohsan.

Chris

From front page

as a freelance for Thor and he will receive royalties for Jack and the Beanstalk. His brother, Steven, helped with the graphics, an outstanding feature of the game.

Christopher came up with the idea of Jack and the Beanstalk because he thought people were getting fed up with space games and shoot-outs. Now he is going to think up some more new

Jack and the Beanstalk received a five-star rating when reviewed in Home Computing Weekly. "Frustrating but challenging; if you want a difficult action game this can certainly be recommended', our reviewer wrote.

Headmaster Ken Cook says he is not worried about Christopher dropping 'A' levels and he is sure he will be a big success in computers.

No longer in the dark

Broadway Electronics chose to herald its mushrooming expansion plans by sending mushrooms to numerous computer personalities. Halfpound punnets of fresh mushrooms were delivered to their desks following the opening of new high tech headquarters in Bedford in March. Plans have been kept in the dark while new marketing strategies were formed.

Mushroom Computers becomes the parent company, responsible for marketing and manufacturing BBC/Electron add-ons. Broadway Electronics becomes a subsidiary and continues as Mushroom's retail arm. Mushroom Software and Mushroom Electronics are two other subsidiaries.

Paul Vaughan, managing director, said: "While continuing to manufacture peripherals for Acorn, we will develop independent products to an increasing degree?'

Broadway Electronics, Aston Rd, Bedford, Beds MK42 0LJ

PSS track success

Kevin Bowes, the motorcyclist sponsored by PSS, is having a successful season. He is currently lying fifth in the Marlboro Clubman's Championship. This is only his second season, yet he has completed over 30 races.

Kevin is a 23-year-old Coventry printer, who took up racing motor bikes as a hobby. His progress against local rivals was quick, and PSS decided to back him in is career on the track.

Kevin has qualified for the Marlboro Clubman's Championships at Silverstone on September 22 and 23.

PSS, 452 Stoney Stanton Rd, Coventry CV6 5DG

Run for fun

The third annual Cambridge half-marathon, festival sponsored by Sinclair Research, has attracted a record 2,599 entries, including British Olympic marathan hope, Joyce Smith.

The half-marathon will take place on Sunday 15 July, Leading Sinclair staff have been persuaded to take part and Sir Clive and managing director Nigel Searle plan to jog along

with the rest.

The fun run starts at 8.30 a.m. and the course is from Parkers Piece, Cambridge, through Fen Causeway, Grantchester and Trumpington. If you would like to participate, call Eddie Sharp at Cambridge City Council on 0223 358977.

Stop those headaches

Do you see spots before your eyes or feel a pounding in your ears after spending hours in front of your trusty micro? If so, you could be suffering from vision disorders or headaches, known to be problems faced by TV computer users.

You may find relief from Reading, Berks

your ailments if you invest in an anti-glare filter, available from Romag. CEAF is a laminated filter combined with a diffused etched face which dissipates unwanted reflections. CEAF fits the curvature of the screen and is fixed on by velcro.

CEAF will retail for under £20 and should be in stock at your major high street computer dealer.

Romag, Patterson St, Blaydon on Tyne, Tyne and Wear NE21 5SG

Scary monsters

Just out on the Commodore 64: Bonzo, from Audiogenic. Audiogenic says that Bonzo features brilliant full-screen graphics and "some of the most devious and vicious monsters ever devised?"

You're a workman who must collect boxes from different levels of the screen. You must climb up and down ladders, avoiding monsters who are guarding the boxes. The monsters react intelligently and try to trap you on a particular level. Price: £5.95.

Audiogenic, B PO Box 88,

LOOKING FOR BUSINESS **SOFTWARE?**

WE HAVE BUILT A LIBRARY OF INFORMATION ON WHAT IS **AVAILABLE**

A PHONE CALL IS ALL IT WILL COST YOU TO GET SOMEONE ELSE TO COME UP WITH THE ANSWER

01-625 5404

DJ COMPUTERS

40 FRETHERNE ROAD, WELWYN GARDEN CITY **HERTS AL8 6NU**

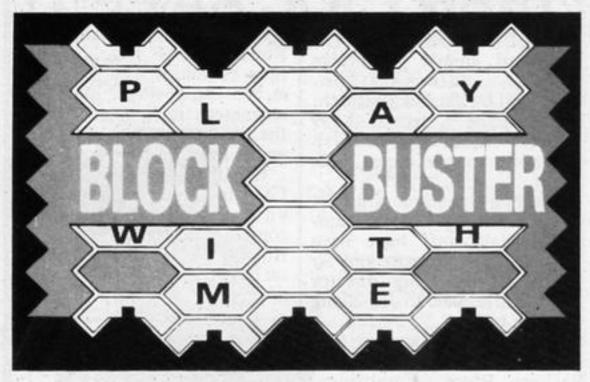
ATTENTION ALL SPECTRUM, CBM 64 AND BBC OWNERS

1 GAME FREE WHEN YOU BUY 10 CASSETTES SPECTRUM SUPER SNAILS VALUE — 5.95 SPECTRUM BARREL DROP VALUE — 5.95 CBM 64 THE FABULOUS WANDA VALUE — 7.95 CBM 64 EGBERT VALUE — 7.95 CBM 64 AARGH! CONDOR VALUE 7.95 BBCB OGLES VALUE 8.95

ADD 50p P&P, ACCESS, BARCLAYCARD, CHEQUE OR POSTAL ORDER

TEL: 07073 28444

ADAPTED FROM THE POPULAR T.V. SERIES!!!



BLOCK—BUSTER is an exciting quiz game for ONE or TWO players and will appeal to a wide range of ages and skills with nine levels of play against the clock. The game tests speed of recall involving anticipation of the question as it 'unfolds' across the screen and speed of response dependant on the level of play.

BLOCK BUSTER is supplied with the FIRST ADDITIONAL QUESTION TAPE FREE to maintain the challenge of the game. Now available at good computer shops or direct with chequep.O. for 5.95 inclusive. ACCESS and VISA orders taken on our 24 Hour Hotline.

COMPUSOUND

DEPT HCW, 32-33 LANGLEY CLOSE, REDDITCH, WORCS B98 OET TELEPHONE (0527) 21429 (21439 24 Hr. HOTLINE)

SUPER SAVERS

		OUR			OUR
SPECTRUM	R.R.P.	PRICE	COMMODORE 64	R.R.P.	PRICE
OMEGA RUN	£7.95	£6.95	FLIGHT SIMULATOR	£9.95	£8.70
GLUG GLUG	£5.95	£5.20	OMEGA RUN	£7.95	£6.95
OLYMPICS	£5.95	£5.20	BUMPING BUGGIES	£6.99	£6.15
JUNGLE FEVER	£6.90	£6.10	FLYING FEATHERS	£6.99	£6.15
SKULL	£6.95	£6.15	WHEELIN WALLY	£7.00	£6.15
BARRELDROP	£5.95	£5.20	CHINA MINER	£7.00	£6.15
CHUCKIE EGG	£7.90	£6.95	GET OFF MY GARDEN	£7.00	£6.15
KAMAKAZI	£6.90	£6.10	BURGER TIME	£7.00	£6.15
BLADE ALLEY	£5.95	£5.20	FABULOUS WANDA	£7.95	£6.95
LIGHT CYCLE	£5.95	£5.20	CHUCKIE EGG	£7.90	£6.95
KONG	£5.95	£5.20	SPACE PILOT	£7.95	£6.95
SLAP DAB	£5.95	£5.20	FLIGHT PATH 737	£7.95	£6.95
MOON BUGGY	£5.95	£5.20	CYBOTHRON	£7.95	£6.95
VIC 20					
SLAP DAB	£5.95	£5.20	BONGO	£7.95	£6.95
DOTHAN	£5.95	£5.20	SKRAMBLE	£7.95	£6.95
FALCON FIGHTERS	£5.95	£5.20	THE PITZ	£6.00	£5.25
FROG RUN	£5.95	£5.20	THE DUNGEONS	£5.95	£5.20
POST & PACKING			FOR COMPREHENSIVE SEND S.A.E.		OGUE
ACCESS WEL	COME		16 COATES CL	OSE	

BRIGHTON HILL

TEL: 0256-51444

BASINGSTOKE RG22 4FE

JLC DATA DUPLICATION

CONTROL CONTRO

CASSETTES — DISCS — EPROMS

- * 7 YEARS DATA EXPERIENCE * HIGH LEVEL OF SECURITY * NORMALLY NO MASTERING FEE **★ NORMALLY 7-10 DAY TURNAROUND**
- * 24 HOUR TURNAROUND SUPERFAST SERVICE IF REQUIRED

Cassette Duplication — for most micros.

Disc Duplication - 35, 40, 80 track S/S, D/S, S/D, D/D.

Eprom Duplication — most types. All data verified.

Blank Cassettes, Discs, Eproms — bulk sales only. Blank Labels — most colours — bulk sales only. Labels in sheets or rolls.

NEW SERVICE

Letter-heads and forms in rolls or fanfold for computer printing.

> Telephone: (0226) 87707 24 hours 7 days a week

Enquiries and accounts to: JLC DATA, 49 CASTLE STREET, BARNSLEY, **SOUTH YORKSHIRE S70 1NT**

In the interests of security, callers without appointments or proof of company status will not be seen.

GOLD CREST

9 Winchester St. London W3 Tel: 992 1362 Ext. 126

MAILORDER

SPECIAL	OFFERS
UNTIL 31s	t JULY 84
SPECTRUM	COMMODOR

		ur Price		R.R.P. Ou	r Price
Computer 48K	£129.00	£118.00	Computer	£199.00 £	186.50
SOFTWARE					a strengers
Hulk	£9.95	£8.50			
Mugsy	£6.95				
Sabre Wulf		5 £8.50			
Lords of Midnight	£9.95		SOFTWARE		
Antics	€6.95		Hulk		
Jack & The Beanstalk	£5.95		Loco	£9.95	£8.50
Adsastra	€5.95	£4.90		£7.95	£6.20
Attic Atac	£5.50		Sheep in Space	£7.50	€6.40
Tutenkamen	£5.95		Beach Head	£9.95	£8.50
Kosmic Kanga		£4.90	Cavlon	€6.90	£5.70
Pengy	€5.95		Solo Flight	£14.95	
Psytron	€7.95		Voodoo Castle	£9.95	£8.00
Beaky & The Eggsnatche	rs £5.50		Odyssey	£6.95	£5.90
Dooms Day Castle	€6.50	£5.75	Classic Adventure	£6.95	£5.75
Death Chase	€6.95		Snowball	£9.95	28.00
Code Name Mat	£6.95		Colossal Adven.	£9.95	£8.00
Scuba Dive		£5.75	Transylvanian Tower	£6.50	£5.20
Wheelie	£5.95		Gyropod	€6.90	€5.75
Blade Alley	£5.95		Bozo's Night Out	£6.90	€5.75
Les Flics	€6.95		Super Pipe Line	€6.90	£5.60
Cavern Fighter		£4.90	Space Pilot	£7.95	£6.50
Cyber Zone	€5.50		Attack/Revenge of the		
Gilligan's Gold	€5.90		Mutant Camel	£7.50	£6.40
Moon Alert	€5.90		Hell Gate	£5.00	£4.00
Pogo	€5.90		Grid Runner	£5.00	£4.20
Hunch Book	€6.90		Blagger	£7.95	£6.20
Jet Set Willy	£5.95		Son of Blagger	£7.95	€6.20
Manic Miner	€5.95		Scuba Dive	£6.95	£5.80
Blue Thunder	€5.95		Flight Path 737	£7.95	£6.20
Trash Men	€5.95		Cybotron	£7.95	£6.20
Fighter Pilot		€6.20			
Night Gunner	€6.95				
Timegate	€6.95				
Fred	€6.95				
Bugaboo		£5.90	COMING SOON		
Snowman	€6.95		Tales of the Arabian		
Classic Adventure	€6.95		Nights	£7.00	€5.95
	20.00	£11.75	11191110	21.00	20.30

LAWTON _IMITED



Our top prize in this week's competition is a weekend for two in Paris. Paris is an exciting city; the Parisians are stylish and elegant and enjoy the French tradition of drinking at roadside cafes and watching the world go by. You'll soon get into the swing of it.

Stroll along the Champs Elysées, climb the Eiffel Tower and take a boat ride down the Seine. Wander round the Galeries Lafayettes and spend an hour or so in the Louvre. While Paris is rich in cultural heritage, it's also up to the minute in fashion and design.

There's so much to do in Paris that a weekend can only give you the taste of this city at the heart of France. The cuisine is justly world famous and wine is cheap. And now you have the chance of visiting Paris — at Option's expense.

The top prizewinner of this week's competition will be flown out to Paris, courtesy of Options, and will stay in a hotel at Option's expense together with his or her companion. This is an ideal opportunity to enjoy an off-season weekend break in the French capital.

Fifty additional prizewinners will receive one of Option's range of educational software, which runs on the BBC and Commodore 64. In the shops each tape costs £8.95 (£9.95 for disc) so the prizes are worth £500.

All you have to do is suggest three applications for adult software. Options is planning to release non-technical software for Mums and Dads and wants you to send in your brainwaves on what would keep them fascinated.

Options is currently preparing a birthday book package, in which the user can retain all necessary dates, as well as a gardening program. What can you think of?

Options' educational software also involves parents. Each program has the facility for addition of data and questions. For example, after the demo program has been run, an adult could type in

questions which are relevant to the child's school syllabus. That's one way of involving both parents and children.

Options is a new company formed in June 1984. Options wants to encourage adults to use home computers. David Collins, manager, said: "In 99 out of 100 cases Mum and Dad bought a computer for their child and hoped it would provide help with homework. Our educational packages are ideal for that."

He continued: "What we want now is to provide software for their own use. There's really nothing on the market at the moment for adult leisure. There's only games and technical packages like spreadsheets."

So put on your thinking caps and send us three original ideas — and you could find yourself on that plane winging its way to Paris!

How to enter

Write on the coupon, in order of importance, three original ideas for adult software. Explain clearly and concisely your reasons why each program would interest adults. Your ideas should be non-technical programs for adults with little or no knowledge of computing. Please do not include the names of any arcade or non-arcade games.

Complete the sentence "I'd like to go to Paris because..." in not more than 20 words. This will be used as a tie-breaker, in the event of more than one person being eligible for the top prize.

Write in your name and address and computer (Commodore or BBC). Complete the coupon clearly and fully — it will be used as a label if you are a prizewinner. Please include your age: if you are a top prizewinner and are under 18 you will need to be accompanied by an adult companion.

Send the coupon to Options Competition, Home Computing Weekly, No. 1 Golden Square, London W1R 3AB. Entries close at first post on Friday August 10, 1984.

Take off for a weekend in Paris courtesy of Options. And we're also giving away 50 tapes from Options

You may enter as many times as you wish, but each entry must be on an official coupon — not a copy — and sealed in a separate envelope.

Important: please follow carefully the guidelines on entering — incomplete coupons cannot be considered.

The rules

Entries will not be accepted from employees of Argus Specialist Publications, Options and Alabaster Passmore & Sons. This restriction also applies to employees' families and agents of the companies. The How to Enter section forms part of the rules.

0	ptions
Com	petition

Entry Coupon	
1	
2	
3	THE PARTY OF
Ud like to so to Dovie because	
I'd like to go to Paris because	
Name	
Address	
post code	
Computer (BBC or Commodore 64)	THE REAL PROPERTY.
Age (if under 18)	
Complete clearly and fully — if you are a winner this will act as a label to Options Competition. Home Computing Weekly, No. I Golden Sou	or your prize. Post

3AB. Closing date: first post, Friday August 10, 1984.

```
10 PAPER 4: BORDER 4: RANDOMIZE 0
 20 GD SUB 1409: GD SUB 1040
 22 GO TO 30
 29 CLS : BORDER 4: GO SUB 1390
 30 PAPER 7: GO SUB 1580
 31 GO SUB 2000
 40 DIM v(11): LET 1=0
 45 LET bw=INT (RND*5)+1
 50 LET 1w=0
 60 LET wkt=0: LET tot=0: LET ov=0: LET pl=0: LET no=1
 70 LET bal=0: PRINT AT 10,15; ov: PRINT INVERSE 1; AT bw+5,27; "Q": PRINT AT 18
5;hi
 80 LET V=0
 90 LET v=INT (RND*270)+1+(p1/30)+(bw-3)+(2-INT (no/2))
 91 IF v<1 THEN LET v=1
 92 IF v>270 THEN LET v=270
100 PAUSE 0
110 IF INKEY$<>"1" AND INKEY$<>"2" AND INKEY$<>"3" AND INKEY$<>"r" AND INKEY$<>
"R" THEN GO TO 100
120 IF INKEY$="1" THEN GD TO 160
130 IF INKEY$="2" THEN GO TO 220
 140 IF INKEY$="3" THEN GO TO 290
150 IF INKEY$="r" OR INKEY$="R" THEN GO TO 350
160 IF v>=1 AND v<=5 THEN GO TO 510
170 IF v>=6 AND v<=132 THEN GO TO 500
180 IF v>=133 AND v<=232 THEN GO TO 520
190 IF v>=233 AND v<=266 THEN GO TO 530
200 IF v>=267 AND v<=268 THEN GO TO 540
210 IF v>=269 AND v<=270 THEN GO TO 550
```

Will you be d cricketing

over the crowd...

That's how One Day Cricket, for the 48K Spectrum, begins. Your challenge is to get the best high score or beat a random high score.

The program holds Essex and England teams and choice is made depending on whether you select 40 or 50 overs.

These may be changed by altering the following lines (where x\$ is Essex/England and f\$ is the opposition):

802 & 812 venue (county/ 809 & 819 data (county/ international)

2002 & 2501 data (county/ international)

2004 & 2503 x\$ Essex/England

The opposition is randomly chosen for cosmetic purposes and does not affect the outcome of the game.

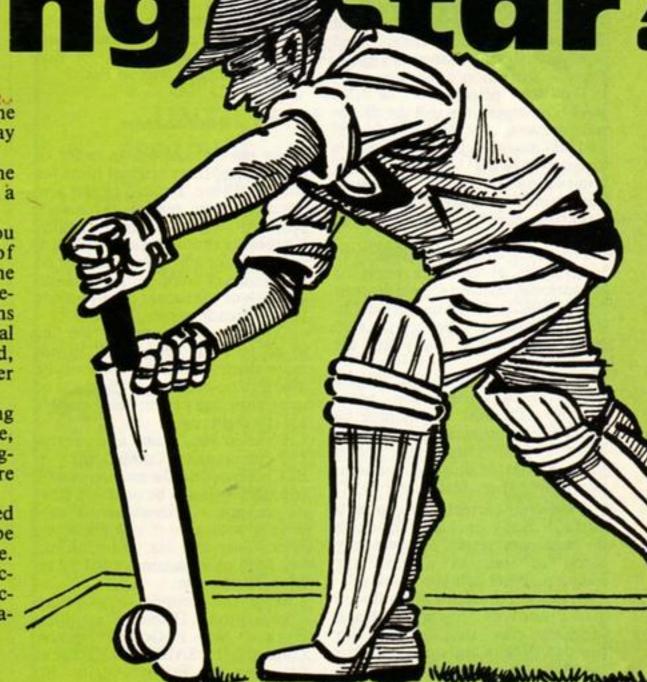
You stand nervously at the At the end of the innings the crease as an expectant hush falls scoreboard and score card may be copied on the ZX Printer.

> Spectators on each side of the scoreboard raise their arms if a six is hit or a wicket falls.

> At the end of each over you are given the option of obtaining the run rate and the required run rate. The scoreboard keeps track of total runs scored, batsman's runs, total when wicket fell, overs bowled, wickets fallen and bowler number bowling.

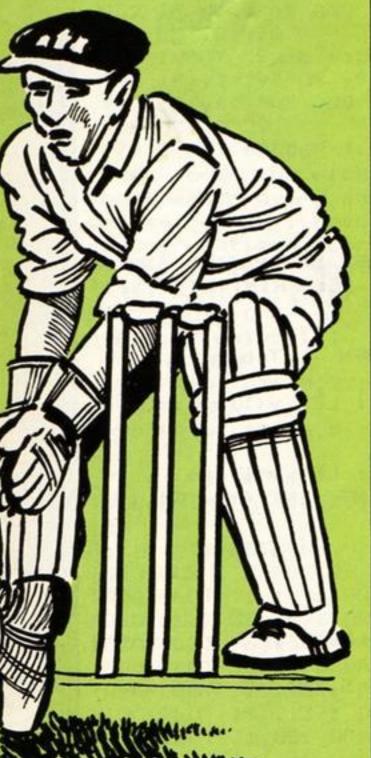
> You play the game using three keys: 1 defensive stroke, 2 attacking/solid stroke, 3 aggressive stroke. Full details are in the program.

Capitals which are underlined are UDGs and should be entered in GRAPHICS mode. They are: A-M wicket, N spectators, O arms aloft, P spectators with arms aloft, Q indicator for bowlers.



M PROGRAM

```
220 IF v>=1 AND v<=15 THEN
                            GO TO 510
230 IF v>=16 AND v<=146 THEN
                              GO TO 500
240 IF v>=147 AND v<=201 THEN
                               GO TO 520
250 IF v>=202 AND v<=231 THEN
                               GO TO 530
                               GO TO 540
260 IF v>=232 AND v<=234 THEN
270 IF v>=235 AND v<=269 THEN
                               GO TO 550
280 IF v=270 THEN
                  GD TD 560
290 IF v>=1 AND v<=45 THEN
                            GO TO 510
300 IF v>=46 AND v<=123 THEN
                              GD TO 500
                               GO TO 520
310 IF v>=124 AND v<=181 THEN
320 IF v>=182 AND v<=201 THEN
                               GO TO 530
325 IF v>=202 AND v<=205 THEN
                               GO TO 540
330 IF v>=206 AND v<=230 THEN
                               GO TO 550
340 IF v>=231 AND v<=270 THEN
                               GO TO 560
                  GO TO 100
350 IF DV=0 THEN
360 IF bal>0 THEN GO TO 100
370 LET r=tot/ov: LET r$=STR$ r: PRINT AT 21,1; "Run Rate "
                     PRINT AT 21,11;r$+".0": GO TO 410
380 IF LEN r$<3 THEN
                      PRINT AT 21,11;r$: GO TO 410
390 IF LEN r$=3 THEN
400 IF LEN r$>3 THEN PRINT AT 21,11;r$( TO 4): GO TO 410
410 IF tot>=hi THEN GO TO 490
420 LET q=hi-tot+1
425 IF ovs=50 THEN GO TO 435
430 LET p=40-ov: LET t=q/p: GO TO 440
435 LET p=50-ov: LET t=q/p
440 LET t$=STR$ t: PRINT AT 21,17; "Reqd.R/R "
                     PRINT AT 21,27;t$+".0": GO TO 480
450 IF LEN t$<3 THEN
460 IF LEN t$=3 THEN PRINT AT 21,27;t$: GO TO 480
                     PRINT AT 21,27;t$( TO 4): GO TO 480
470 IF LEN t$>3 THEN
480 PAUSE 0
481 IF INKEY$<>"r" AND INKEY$<>"R" THEN
           00
```



Variables

V(1) scores for player on scoreboard

1 variable for player, no score bw current bowler's number

lw score at which last wicket fell wkt number of wickets fallen

tot total runs at current time ov overs elapsed

pl current player's score

no current batman's number

bal ball number of current over V random number plus formula

r run rate (total - over) high total (for required run

ovs number of overs chosen (40 or 50)

40-over (for required run

9 ÷ p (for require run rate) z (bal*4+1) position for display initial total to aim for

(updated if chosen) rr tot-hi, rs hi tot. For "won by

runs" on scoreboard sk skill factor chosen

rs STRSs r

t\$ STR\$ t

keyboard response (copy

board) es date

w\$ players' names

x\$ home team

fs away team

keyboard responses:

ss another innings

g\$ copy card

y\$ same match details

q\$ instructions

b\$ instructions again is details correct

Choose a county match or face some of the best international teams in One Day Cricket, a Spectrum game by R. Butcher

How it works

40-92 set variables

110-150 check keyboard for input

160-340 result for that particular ball

350-360 stops run rate/required run rate midway through over 370-400 works out/prints run

rate 410 checks total behind so run rate may be printed

420-470 work out/print required run rate

480-493 reprints over required run rate and run rate, returns to game

500-560 add wickets/runs to total/player's score

570-630 print result of ball at appropriate position

640-670 increment variables 690-720 print new data, updated if necessary after each ball

730 checks if wickets equal 10 for end of game

740 checks if more balls to over,

if so returns to game

750-751 check if BAL = 1, if so "end of over;" deletes displays

752-760 check if end of over has been reached, if not return to game

770 "end of innings" printed. Asks if copy wanted

800-921 prints out scorecard 930-958 card copy option, match details option

970 end screen 1000-1030 if wicket falls specta-

tors raise arms 1040-1260 title screen

1290-1370 instructions 1390-1408 input details

1409-1565 UDGs

1580-1720 set up screen display 2000-2002 if overs equal 40 picks

county team 2500 if overs equal 50 picks national team

2502-2552 screen displays

```
491 PAUSE 0
 492 IF INKEY$<>"r" AND INKEY$<>"R" THEN GO TO 491
 493 PRINT INK 4; AT 21,1; " | GO TO 100
 500 LET tot=tot+0: GO SUB 980: GO TO 570
 510 LET wkt=wkt+1: GO SUB 660: GO SUB 1000: LET pl=0: LET no=no+1: GO SUB 980:
GO TO 580
 520 LET tot=tot+1: LET pl=pl+1: GO SUB 980: GO TO 590
 530 LET tot=tot+2: LET p1=p1+2: GO SUB 980: GO TO 600
 540 LET tot=tot+3: LET p1=p1+3: GO SUB 980: GO TO 610
 550 LET tot=tot+4: LET pl=pl+4: GO SUB 980: GO TO 620
 560 LET tot=tot+6: LET p1=p1+6: GO SUB 980: GO TO 630
 570 GO SUB 640: PRINT BRIGHT 1; INK 2; AT 12, z; " ... "; AT 13, z; " ... "; AT 14, z; " ...
"; AT 15,z;" ": GO TO 690
 580 GO SUB 640: PRINT BRIGHT 1; AT 12, z; "BD "; AT 13, z; "BD "; AT 14, z; "BD "; AT
,z;"@@ ": PAUSE 15: BEEP .01,0: PRINT BRIGHT 1;AT 12,z;"EEM";AT 13,z;"@@K";A
T 1
4,z;"원도보";AT 15,z;"원보표": GO SUB 1030: GO TO 690
 590 GD SUB 640: PRINT BRIGHT 1; INK 4; AT 12, z; " sm "; AT 13, z; " # "; AT 14, z; " #
":AT 15.z:" " GO TO 690
"; AT 15,z;" " GO TO 690
610 GO SUB 640: PRINT BRIGHT 1; INK 5; AT 12, z; " seres "; AT 13, z; " ", AT 14, z; "
"; AT 15,z;" " GO TO 690
620 GO SUB 640: PRINT BRIGHT 1; INK 6; AT 12, z; " # "; AT 13, z; " # "; AT 14, z; " "
";AT 15,z;" " ": GO TO 690
630 GO SUB 640: PRINT BRIGHT 1; INK 1; AT 12, z; " # "; AT 13, z; " # "; AT 14, z; " #
"; AT 15,z; " " GO SUB 1020: GO TO 690
640 LET z=(bal*4+1)
650 RETURN
660 LET 1=1+1
670 LET v(1)=p1
680 RETURN
690 PRINT AT 6,14: tot
700 PRINT AT 8,15; wkt
710 PRINT AT 5,22;no
720 PRINT AT 7,21;pl
730 IF wkt=10 THEN GD TD 770
740 IF bal<6 THEN GO TO 80
750 IF bal=6 THEN PRINT FLASH 1; AT 21,0; "END OF OVER": PAUSE 50: PRINT INK 4
;AT 21,0;" | FOR a=5 TO 25 STEP 4: FOR b=12 TO 15: PRINT AT b,a;"
: NEXT b: NEXT a: LET bal=0: LET ov=ov+1
751 LET bw=bw+1: PRINT INVERSE 1; AT bw+4, 27; " ": IF bw=6 THEN LET bw=1
752 IF ov<40 THEN GO TO 70
760 IF ov=40 AND ovs=40 THEN PRINT AT 10,15; "40": LET 1=1+1: LET v(1)=p1: GO T
0 770
761 IF ov<50 AND ovs=50 THEN GO TO 70
762 IF ov=50 AND ovs=50 THEN PRINT AT 10,15; "50": LET 1=1+1: LET v(1)=p1
770 PRINT FLASH 1; AT 21,18; "END OF INNINGS": PAUSE 200: PRINT INK 4; AT 21,18;
"云宫是从可是的这种思想是是是"
780 INPUT "ZX printer copy (y/n)?";c$
790 IF c$="y" OR c$="Y" THEN GO SUB 2550: COPY : GO TO 780
791 IF c$<>"n" AND c$<>"N" THEN GO TO 780
800 IF ovs=50 THEN GO TO 811
801 CLS : PRINT '''': FOR 1=1 TO 11: PRINT TAB (20); v(1): NEXT 1
802 PRINT AT 1,3; "Chelmsford"; AT 1,18; e$
803 PRINT AT 2,14-LEN x$;x$;AT 2,15;"v";AT 2,17;f$: PRINT AT 5,INT 15-(LEN x$-1
)/2:x$
804 PRINT '
```

M PROGRAM

```
805 RESTORE 805: FOR a=1 TO 11
 806 READ w$
 807 PRINT TAB (6); w$
 808 NEXT a
809 DATA "G.Gooch", "B.Hardie", "K.McEwan", "K.Fletcher", "K.Pont", "S.Turner", "D.Pr
ingle", "D. East", "N. Phillip", "N. Foster", "J. Lever"
810 GO TO 890
 811 CLS : PRINT '''': FOR 1=1 TO 11: PRINT TAB (20): v(1): NEXT 1
 812 PRINT AT 1,3; "Lords"; AT 1,18; e$
813 PRINT AT 2,14-LEN x$; x$; AT 2,15; "v"; AT 2,17; f$: PRINT AT 5, INT 15-(LEN x$-1
)/2:x$
 814 PRINT '
 815 RESTORE 815: FOR a=1 TO 11
 816 READ w$
 817 PRINT TAB (6); w$
 818 NEXT a
819 DATA "G.Fowler", "C.Tavare", "D.Gower", "A.Lamb", "D.Randall", "I.Botham", "B.Tay
lor", "G. Dilley", "N. Cowans", "N. Foster", "R. Willis"
 890 PRINT AT 19,6; "TOTAL ("; wkt; AT 19,14; "wkts)"; AT 19,20; tot
900 PRINT AT 20,8; ov; AT 20,10; ". "; AT 20,11; bal; AT 20,13; "overs"
 901 LET rr=tot-hi: LET rs=hi-tot
 902 IF tot=hi THEN GO TO 910
 903 IF tot>hi THEN GO TO 911
 904 IF hi>tot THEN GO TO 912
910 PRINT AT 4,10-LEN x$; x$; AT 4,11; "drew with "; AT 4,21; f$: GO TO 919
911 PRINT AT 4,11-LEN x$;x$;AT 4,12; "won by ";rr;AT 4,23; "runs": GO TO 919
912 PRINT AT 4,11-LEN f$;f$;AT 4,12; "won by ";rs;AT 4,23; "runs"
919 PLOT 12,172: DRAW 230,0: DRAW 0,-169: DRAW -230,0: DRAW 0,169
920 PLOT 159,31: DRAW 25,0
 921 IF tot>hi THEN LET hi=tot
 930 INPUT "ZX printer copy ?(y/n)";g$
940 IF g$="y" OR g$="Y" THEN COPY : GO TO 930
 941 IF q$<>"n" AND g$<>"N" THEN GO TO 930
 950 INPUT "Do you want another innings?";s$
 951 IF s$="y" OR s$="Y" THEN GO TO 955
 952 IF s$<>"n" AND s$<>"N" THEN GO TO 950
 953 GO TO 970
 955 INPUT "Same match details ?";y$
 956 IF y$="y" OR y$="Y" THEN BORDER 4: GO TO 30
 957 IF y$<>"n" AND y$<>"N" THEN GO TO 955
 958 GO TO 29
970 CLS : BORDER 4: PRINT " ... CLOSE OF FLAY...": PRINT ""As the sun slow!
y sets over the wicket, we must bid farewell to another day's exciting cricket.
The teams, players and spectators will be here the same time tomorrow - will
you set a new record runs total, or be bowled out for a record low ?. Will one
                                time record over 40 or 50 overs? Who knows what m
of your batsmen score an all
                another game of..."
ay happen in
 971 PRINT AT 15,8; "ONE DAY CRICKET"
 972 PAUSE 0
 980 LET bal=bal+1
 990 RETURN
1000 PRINT AT 18,22; tot: PRINT INVERSE 1; AT 7,21; "
1010 RETURN
1020 PRINT AT 16,0; "EPPP"; AT 15,0; "9999": PAUSE 35: PRINT AT 15,0; "
                                                                            "; AT 1
6,0
;"UUUU": RETURN
1030 PRINT AT 16,29; "PPP"; AT 15,29; "PPP": PAUSE 35: PRINT AT 15,29;"
                                                                           ": AT 16
,2
9: "NNN": RETURN
1040 CLS : PAPER 4: BORDER 4
1050 PLOT 15,159: DRAW 15,0: DRAW 0,-22: DRAW -15,0: DRAW 0,22
1060 PLOT 38,137: DRAW 0,22: DRAW 15,-22: DRAW 0,22
1070 PLOT 76,137: DRAW -15,0: DRAW 0,22: DRAW 15,0: PLOT 61,148: DRAW 15,0
1080 PLOT 96,137: DRAW 0,22: DRAW 8,0: DRAW 8,-11: DRAW -8,-11: DRAW -8,0
1090 PLOT 120,137: DRAW 8,22: DRAW 8,-22: PLOT 124,147: DRAW 8,0
1100 PLOT 151,137: DRAW 0,14: DRAW -8,8: PLOT 151,151: DRAW 8,8
1110 PLOT 31,88: DRAW -15,0: DRAW 0,22: DRAW 15,0
```

```
1120 PLOT 39,88: DRAW 0,22: DRAW 15,0: DRAW 0,-11: DRAW -15,0: DRAW 15,-11
1130 PLOT 67,88: DRAW 0,22
1140 PLOT 95,88: DRAW -15,0: DRAW 0,22: DRAW 15,0
1150 PLOT 103,88: DRAW 0,22: PLOT 119,88: DRAW -15,11: DRAW 15,11
1160 PLOT 143,88: DRAW -15,0: DRAW 0,22: DRAW 15,0: PLOT 143,99: DRAW -15,0
1170 PLDT 159,88: DRAW 0,22: PLDT 151,110: DRAW 15,0
1180 PLOT 223,144: DRAW 6,0: DRAW 0,-40: DRAW 7,0: DRAW ,-93: PLOT 216,11: DRAW
0,93: DRAW 7,0: DRAW 0,40: PLOT 216,11: DRAW 20,0,PI/2
1190 PLOT 224,144: DRAW 0,-40: PLOT 228,144: DRAW 0,-40: PLOT 226,87: DRAW 0,-62
: PLOT 220,95: DRAW 6,-8: PLOT 232,95: DRAW -6,-8
1200 PLOT 199,8: DRAW 0,80: DRAW -32,0: DRAW 0,-80: PLOT 183,8: DRAW 0,80
1210 CIRCLE 127,40,20: PLOT 127,20: DRAW 0,40: LET a=123: FOR b=20 TO 60 STEP 3:
 PLOT a,b: NEXT b: LET a=131: FOR b=20 TO 60 STEP 3: PLOT a,b: NEXT b
1220 PRINT AT 16,2; "by"; AT 18,2; "R. Butcher"
1230 PRINT AT 19,3; 1984"
1260 INPUT "Instructions ? (y/n)";a$
1270 IF a$="y" OR a$="Y" THEN GO TO 1290
1271 IF a$<>"n" AND a$<>"N" THEN GO TO 1260
1280 GO TO 1390
1290 INK 7: CLS : PRINT "INSTRUCTIONS FOR ONE DAY CRICKET": PRINT '
1300 PRINT "In this game you act for the side batting. One Day Cricket cons
ists of 40 overs(County) or 50 overs(International); ending either at the end of
           allotted overs or the loss of 10wickets, whichever the sooner. ": PRIN
T "The scoreboard keeps you informed of what is happening after every d
elivery.": PRINT "For a ball to be bowled press either the keys 1 2 OR 3.": PR
INT INVERSE 1; AT 19, 10; "PRESS ANY KEY"
1310 PAUSE 0: CLS : PRINT "These keys also simulate the
                                                          batsmans stroke to th
           particular delivery. The keys represent as follows..."
at
1320 PRINT '"1 DEFENSIVE STROKE"
1330 PRINT "2 ATTACKING/SOLID STROKE"
1340 PRINT "3 AGGRESSIVE STROKE"
1350 PRINT '"By tactical use of these keys for each ball, you determine the out
come (NO-SCORE, RUNS SCORED, OUT).": PRINT "(e.g) Using the 1 key will not prod
uce as many runs as 2 OR 3 but there is less chance of being out.": PRINT
INVERSE 1; AT 19,10; "PRESS ANY KEY": PAUSE 0: CLS : PRINT "The following statisti
        also determined by the key chosen. (RUNS/OVER:RUNS/WICKET OVERS/
cs are
WICKET)."
1360 PRINT "Apart from these set ratios, alsotaken into account are...
                   (b) Bowlers No [1-5]
atsmans No [1-10]
                                                          (c)Players current s
           For both (a) & (b) the best playershave the lowest No.
he bottom left corner of theScoreboard will be a team displayed at random,
along with their score that you are trying to beat. Before the first inningsthis
 score is determined by choosing a SKILL FACTOR(1-5).": PRINT INVERSE 1; AT
19,10; "PRESS ANY KEY": PAUSE O: CLS
1361 PRINT "1 being the easiest. This score is then treated as a -hi score- bein
g updated with your hi totalif that is the case after every innings. After each i
nnings you have the option of changing the MATCH DATA which will result in a ne
w randomly chosen target independent of your hi-score."
1362 PRINT "By pressing the R key you are given your RUN RATE and the
IRED RUN RATE to beat the opponents total. This key will only operate at the
end of an over.Pressing R again will
                                           return you to the game. At the
of the innings you are offered the option of a COPY of both the SCOREBOARD
           SCORECARD ON THE IX printer."
and
1370 INPUT "Instructions again ? (y/n)";b$
1380 IF b$="y"OR b$="Y" THEN GO TO 1290
1381 IF b$<>"n" AND b$<>"N" THEN GO TO 1370
1390 INK O: PAPER 7: CLS : PAPER 7: PRINT AT 0,10; "MATCH DATA": PLOT 75,175: DRA
W 0,-11: DRAW 89,0: DRAW 0,11
1391 INPUT "Date";e$
1392 IF LEN e$>12 THEN GO TO 1391
1393 PRINT INVERSE 1; AT 3,3; "Date
                                           - ";e$
1394 INPUT "No of overs ";ovs
1395 IF ovs<>40 AND ovs<>50 THEN GO TO 1394
1396 PRINT INVERSE 1; AT 5,3; "Overs
                                           - "; ovs
1401 INPUT "Skill factor (1-5) ";sk
1402 IF sk<>1 AND sk<>2 AND sk<>3 AND sk<>4 AND sk<>5 THEN 60 TO 1401
```

M PROGRAM

```
1403 PRINT INVERSE 1; AT 7,3; "Skill factor - "; sk
1404 LET hi = (4*ovs) + (sk*25) - INT (RND*20) +1
1405 INPUT "Are the above correct"; i$
1406 IF i$="y" OR i$="Y" THEN RETURN
1407 IF i$<>"n" AND i$<>"N" THEN GO TO 1405
1408 GO TO 1390
1409 RESTORE 1409: FOR f=USR "a" TO USR "q"+7: READ x: POKE f,x: NEXT f
1410 DATA 24,24,24,24,24,24,24,24
1420 DATA 0,0,0,0,31,31,24,24
1430 DATA 198,198,198,198,198,198,198,198
1440 DATA 0,0,0,0,254,254,198,198
1450 DATA 0,24,56,112,96,0,24,24
1460 DATA 0,0,0,0,0,0,192,192
1470 DATA 192,206,223,223,223,206,192,192
1480 DATA 192,192,193,193,195,195,199,199
1490 DATA 192,192,128,128,0,0,0,0
1500 DATA 12,12,24,24,48,48,96,96
1510 DATA 0,0,0,0,3,3,7,6
1520 DATA 192,192,192,192,192,192,192,192
1530 DATA 0,0,192,224,112,48,0,0
1540 DATA 24,36,36,60,66,129,129,129
1550 DATA 0,0,36,36,66,66,66,66
1560 DATA 153,165,165,60,66,129,129,129
1565 DATA 0,56,124,124,124,56,0,0
1570 RETURN
1580 CLS : PAPER 7: BORDER 0
1590 FOR a=3 TO 14: PRINT INK 5; AT a,0; " NEXT a
1600 FOR a=3 TO 14: PRINT INK 5; AT a, 29; "蹦點圈": NEXT a
1610 FOR b=0 TO 2: FOR a=0 TO 31: PRINT INK 5; AT b, a; "圖": NEXT a: NEXT b
1620 FOR b=21 TO 20 STEP -1: FOR a=0 TO 31: PRINT INK 4; AT b, a; "圖": NEXT a: NE
X
1630 FOR a=4 TO 28: FOR b=3 TO 19: PRINT AT b,a;" " NEXT b: NEXT a
1640 PRINT INVERSE 1; AT 4,13; "TOTAL"; AT 5,20; "No
1641 PRINT INVERSE 1; AT 5,25; "Bwl"
           INVERSE 1; AT 6,26; "1"; AT 7,26; "2"; AT 8,26; "3"; AT 9,26; "4"; AT 10,26; "
1642 PRINT
5"
1650 PRINT INVERSE 1; AT 6,14; "
1660 PRINT INVERSE 1; AT 8,10; "WKTS"; AT 8,15;"
1670 PRINT INVERSE 1; AT 10,9; "OVERS"; AT 10,15; " "
1680 FOR A=5 TO 25 STEP 4: FOR B=12 TO 15: PRINT AT B,A;" ": NEXT b: NEXT a
1690 PRINT INVERSE 1; AT 17, 18; "LAST"
1700 PRINT INVERSE 1; AT 18,18; "WKT"; AT 18,22; "
1710 FOR a=16 TO 19: PRINT AT a,0; "NNNN": NEXT a
1720 FOR a=16 TO 19: PRINT AT a,29; "NNN": NEXT a
1730 RETURN
2000 IF ovs=50 THEN GD TD 2500
2001 RESTORE 2001: FOR a=1 TO INT (RND*16)+1: READ f$: NEXT a
2002 DATA "Notts", "Sussex", "Somerset", "Middlesex", "Surrey", "Hampshire", "Leics", "
Kent", "Yorks", "Derbys", "Gloucs", "Glamorgan", "Northants", "Lancs", "Warwicks", "Worc
5"
2003 PRINT INVERSE 1; AT 17,5; f$
2004 LET x$="ESSEX": PRINT INVERSE 1; AT 6,5; x$
2005 RETURN
2500 RESTORE 2500: FOR a=1 TO INT (RND*6)+1: READ f$: NEXT a
2501 DATA "Australia", "India", "Pakistan", "Sri Lanka", "W. Indies", "N. Zealand"
2502 PRINT INVERSE 1; AT 17,5; f$
2503 LET x$="ENGLAND": PRINT INVERSE 1; AT 6,5; x$
2504 RETURN
                                      ": NEXT a
2550 FOR a=3 TO 14: PRINT AT a,0;"
2551 FOR a=3 TO 14: PRINT AT a,29;" ": NEXT a
2552 FOR b=0 TO 2: FOR a=0 TO 31: PRINT AT b,a;" ": NEXT a: NEXT b
2553 RETURN
9999 SAVE "oneday" LINE 1
```

BRITAIN'S SOFTWARE by the ASP Market Research Group

- 1 Sabre Wulf
- 2 Beach Head
- 3 Loco
- 4 Psytron
- 5 Omega Race
- 6 Trashman
- 7 Oblivion
- 8 Son of Blagger
- 9 Trashman
- 10 Munch Mania

- **Ultimate**
- US Gold Alligata
- Beyond
- Alligata
- New
- Generation
- Commodore Oulcksilva
- **Bug-Byte**
- Mastertronic
- Spectrum (-)
- **CBM (2)**
- **CBM 64 (3)**
- Spectrum (5)
- CBM 64 (4)
- CBM 64 (7)
- Spectrum (6)
- CBM 64 (9)
 - Spectrum (10) CBM 64 (-)

- 1 Mugsy
- 3 Flight Path 737
- 3 Lords of Midnight
- 4 Sphinx
- Adventure
- 5 The Inferno 6 Mastermind
- 7 Valhalla
- 8 The Fall of Rome APS 9 Quizmaster
- 10 Solo Flight

- Melbourne House
- Anirog
- Beyond Acornsoft
- R. Shepherd
- Commodore Legend
- Commodore

US Gold

CBM 64 (2) Spectrum (4)

Spectrum (1)

- BBC (3)
- Spectrum (6)
- CBM 64 (5) CBM 64 (7)
- Spectrum (9)
- CBM 64 (10) CBM 64 (8)

Compiled with the assistance of Britain's leading software distributors, including: Pinnacle, SDL, PCE, Websters, PCS and Software Centre.

SPECTRUM

1 Sabre Wulf 2 Jet Set Willy

3 Stop the Express 4 Match Point

5 Mugsy 6 Atic Atac

7 Scuba Dive 8 Fighter Pilot

9 Night Gunner

10 Manic Miner

Ultimate (1) Software Projs (-) Sinclair (9)

Sinclair (-) Melbourne Hse (-) Ultimate (-)

Martech (-)

Digital Integratn (-) Digital Integratn (-) Software Projs (-)

COMMODORE 64

1 Manic Miner

2 Beachhead

3 Solo Flight

4 Colossus Chess

5 Chuckle Egg

6 Snooker

8 Megawarz

10 Revelation

7 Superpipeline

9 Chinese Juggler

Centresoft (-) Centresoft (-) CDS (-)

Software Projs (-)

A & F (-)

Visions (-)

Tasket (-)

Paramount (-)

Microsoft (-) Softek (-)

DRAGON 32

1 Buzzard Balt

3 Hungry Horace

4 Bug Diver

5 Dragon Chess 6Mr Dig

7 Sprite Magic

8 Chuckle Egg

10 Hunchback

Microdeal (-) 2 Cuthbert in Space Microdeal (-)

Melbourne Hse (-) Mastertronic (-)

Oasis Software (-)

Microdeal (-) Knight (-)

A & F (-)

9 Transylvanian Twr R. Shepherd (-) Ocean (-)

Novus (4)

Carnell (9)

Novus (8)

Novus (5)

Sinciair (-)

Sinclair (-)

Sinclair (10)

Compiled by W. H. Smith and Websters. Figures in brackets are last week's positions.

MC-20

- 1 Computer War
- 2 Tank Commander 3 Charlot Race
- 4 Snooker 5 Flight 015 6 Games Designer
- 7 Wizard and the Princess 8 Grandmaster Chess Audiogenic (-)
- 9 Duck Shoot 10 Tower of Evil
- Creative Sparks (-) Creative Sparks (-) Microantics (-) Visions (-)
- Ferranticraig (-) Galactic (-) Melbourne House (-)
- Mastertronic (-) Creative Sparks (-)

BBC

- 1 Aviator
- 2 JCB Digger 3 Linkwood French
- 4 Linkwood German 5 Chouls
- 6 Fortress 7 Snooker 8 Snooker
- Visions (-) 9 Twin Kingdom Valley
- Bug-Byte (-) 10 Tree of Knowledge Acornsoft (-)

Pace (-)

Acornsoft (-)

Acornsoft (-)

Acornsoft (-)

Acornsoft (-)

Acornsoft (-)

Micropower (-)

- 1 Krypton Ordeal 2 Black Crystal
- 3 Planet Raider
- 4 Walk the Plank 5 Sabotage 6 Space Raiders
- 7 Flight Simulation 8 Chess 1K 9 Reversi
- Sinclair (-) Sinclair (-) Sinclair (-) 10 City Patrol

MSX computers are big news. Backed by some of the biggest names in electronics, the stylish new computers are due in the

UK from Japan in September.

In this issue of MSX Computing we question the companies about their MSX plans. And, in an exclusive article, Graham Knight, of Knights TV and Computers, gives you a head start in programming the MSX micros.

We give you the rundown on who's planning what for MSX

Yamaha's MSX micro, due here in November, will also be a musical instrument, with its own remote piano-style keyboard.

The system will cost about £600 and will comprise Yamaha's CX5 computer with a built-in sound module and added keyboard.

Jerry Uwins, marketing manager for the company's UK arm, Kemble-Yamaha, said "With 48 preset sounds it can sound like a piano, trumpet, violin... any instrument you care to name.

"Composing is going to be one particular feature.

"One of the important points to stress is that the various squeaks and squawks that you get out of Commodore and Sinclair are not in the same league.

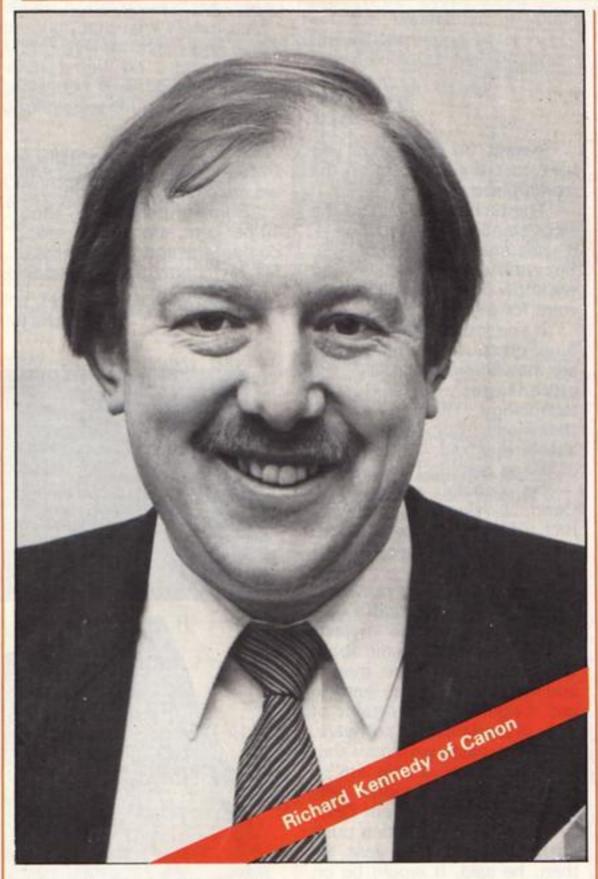
"The sound is very similar to our DX9 synthesiser, which is a proper, pedigree musical instrument using proper classical notation."

The MSX computer from Sony will probably be called the Hit Bit.

Sony's new business manager, Mike Margolis, explained: "Until a week before we launched the Walkman we were in two minds about whether to use the name. Number 3

July 24, 1984

LIVE STATE OF THE PROPERTY OF THE PRO



"We thought: 'Why call it a silly name like Walkman... it's ridiculous'. We thought long and hard about it. But it's now part of the language. It has a personality and it's part of a lifestyle.

"A lot of the thinking behind the computer was done by the same people who are behind the Walkman, so we would expect the same unique approach. The uniqueness of the name has been an advantage to the Walkman and it would be the same for the computer."

Sony's present range of products in the UK include hifi, audio, video, TV and broadcasting equipment for both TV and radio. And Mr Margolis said the computer would be sold through dealers who are currently selling Sony products.

Answering criticisms that the MSX standard could delay computer development, he said: "The way we see home computers is that they have traditionally been developed by boffins, reviewed by boffins and bought by boffins.

"They are people who are interested in computers for their own sakes. We believe there are a lot of people who are interested in home entertainment, not only to do their own programming.

"There is a large number of people who are afraid of buying home computers. They are not sure what to buy and they have a whole list of fears."

The only reason for innovation was to bring benefits to the consumer — which would continue to be done with MSX — but there was no point in putting the latest chip into a home computer to sort 10 megabytes of information more quickly.

Speed of games was important, though. And the format allowed considerable sophistication, not only with discs and the CP/M business operating system to come, but also the possibility of a second processor — increasing speed by two to three times — within about three years.

He stressed, however, that the computers would always be upward-compatible. The companies making them were highly competitive and their only common ground was compatibility.

Mr Margolis said Sony would be bringing out its own

Continued on page 3.

What MSX will mean

MSX will cure the major headache for home computer users and dealers: software for one micro won't generally work on another maker's range.

Several Japanese companies have got together to bring out computers which all use the same BASIC and operating system. And European and American computer makers are thinking of doing the same.

It means that all software and peripherals will run on any computer using the same standard, designed by the U.S. company Microsoft. MSX stands for Microsoft Extended.

MSX computers are due in the shops in September from, among other companies, Hitachi, Teleton, Sanyo, Mitsubishi, Sony, Toshiba, Canon and Yamaha.

Editor Paul Liptrot

Assistant Editor Liz Graham

Designer Bryan Pitchford

Managing Editor Ron Harris

Group Editor Elspeth Joiner

Divisional Advertisement Manager Chris Northam

Chief Executive Jim Connell

Argus Specialist Publications Ltd No. 1 Golden Square London W1R 3AB 01-437 0626

Subscriptions and back issues: Infonet Ltd, 10-13 Times House, 179 Marlowes, Hemel Hempstead, Herts HP1 1BB, 0442 48432. Trade distribution: Argus Press Sales and Distribution Ltd, 12-14 Paul Street, London EC2A 4JS, 01-247 8233. Printed by Alabaster Passmore and Sons Ltd, of London and Maidstone, Kent. Design and origination: MM Design, Circus House, 26 Little Portland Street, London W1N 5AF.

The contents of this publication, including all articles, plans, drawings and programs and all copyright and other intellectual property rights therein belong to Argus Specialist Publications Ltd. All rights conferred by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Ltd and any reproduction requires the prior written consent of the

Argus Specialist Publications Ltd 1984

Continued from page 1.

peripherals, like disc drive and joystick, but probably not a standard joystick.

He said: "We pride ourselves on being innovative."

Toshiba expects to have its computer in the shops in September/October. Product manager Chris Greet said: "We're been ahead of the field in Japan, so we will possibly be one of the first in the UK."

UK buyers had the advantage that they would be getting the second generation of MSX computers, advanced on what first went on sale in Japan.

Talking of computer development, he said that the problem with boffins and research staff was that they always wanted to wait for the next advance before bringing out a computer. He felt that in the beginning there may be some confusion in the minds of buyers about which MSX computer to choose. But this would be cleared up as each manufacturer advertised and promoted its additional features.

He said: "At the end of the day the machines are completely different. Some have cassettes built in, some have got built-in joysticks."

JVC's computer, made in the town of Ewai, 50 miles north of Tokyo, will also have 64K of RAM and cost will be about £250. The company also plans to offer a monitor, 3½ in disc drive and a data recorder.

JVC's assistant marketing manager, Stephen Michaelis, said his company was also thinking of introducing a 5¼ in drive because that format was quite popular.

be running training courses for dealers before the launch."

There would also be training for service engineers at the same centres, as well as in Scotland and Ireland.

Mr Michaelis said: "I don't see many problems on that side — video recorders are far more complex and our dealer network can service them already. Computers are a piece of cake."

JVC, short for the Japan Victor Company, is the inventor of the VHS video recorder format — which now had a claimed 80 per cent of the market — and makes video recorders, TVs, hi-fi, including compact disc players, as well as other products. It employs 1,200 people worldwide.

Mr Michaelis expected JVC to export its computer to most of Europe, starting with France

The big names behind MSX reveal their plans for their own machines. What sets them apart from each other? Paul Liptrot investigates

He said: "At some stage you have to put something on the marketplace.

"The technology behind the MSX standard is not unique — it uses standard components. But we know the reliability and we know how to develop software for the computers.

"If you look at the problems other computer manufacturers are having you can see the advantages of existing technology, That isn't to say that our computers are absolutely fixed. There's a lot of things coming from Japan."

The general manager of Canon's systems division, Richard Kennedy, expected his company's computer to start arriving in October.

He was cautious, however, saying: "We are taking a very advised view of the market. We are very enthusiastic about the product and the market and we are trying very hard to get it right from the point of view of availability of software. From the past, we know that software can be a little late."

He expected Canon's 64K computer, costing about £250, to get a major marketing push in the spring of next year. By then, he said, it would be on sale in every major high street retailer.

He expected tremendous competition between the makers of MSX computers.

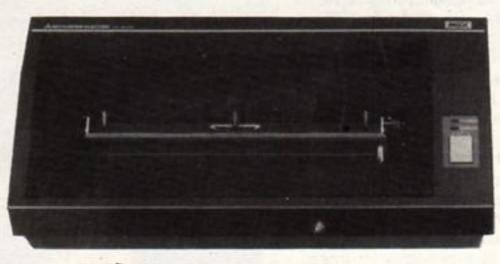
The objects of the MSX working party had been superb but "certain people" would now adopt the standard after the hard work had been done by the founders.

He said: "We are aiming at the audio and video dealer who we are already supplying.

"Some of the dealers, about 10 per cent, are already selling computers and they know a fair bit about them. We have two training centres, in London and in Leeds, and we'll

and Germany next year.

But supplies for the UK would at first be limited. He said: "It's very critical coming into the market in October. This year I don't think we will be able to meet demand because it's coming too late."





New Series NOW TO USE YOUR NOW MIGHT

MSX computers have been on sale in Japan since October 1983 and we have been fortunate enough to have had MSX models at Aberdeen since that time. The purpose of this series of How to MSX articles is to assist readers in understanding all the features and complexities of the MSX range.

The MSX concept is a simple one — MSX seeks to set a standard for home computers. Manufacturers joining the MSX Group agree to make computers to the same technical and software specification.

As all MSX computers have the same cassette, joystick, cartridge and printer interfaces, software and peripherals made by, say, Tobisha, will run on a Sanyo or any other MSX micro.

The MSX concept has had the backing of at least 20 of the largest Japanese electronic corporations since 1983 and they have been joined this by European giants G.E.C. and Philips.

MSX has already taken a large slice of the Japanese home computer market. With the might of companies like Canon, Hitachi, JVC, Mitsubishi, Sanyo, Sony, and Toshiba combining to make computers to a single standard, there is no doubt that MSX will also take a substantial share of the European market.

The manufacturers aim to

sell their micros as "family computers".

As each MSX Group member also manufacturers home entertainment products it is no surprise that MSX micros can be interfaced with radio, TV, hi-fi and video equipment. JVC, the manufacturer which invented the VHS video system, has already shown its micro linked interactively with a video disc player. JVC and the other manufacturers see MSX as setting the standard for home computers, just as VHS sets the standard for video recorders.

Each MSX micro has an extended version of Microsoft Basic in ROM. Switching on a typical MSX micro boots the BASIC which is in a 32K ROM which occupies an area of memory from 0000H to 7FFFH.

The computer then finds the largest continuous block of memory from FFFFH down to 8000H and uses this for program and data storage. All MSX micros start up with white letters on a blue background. The following is displayed at the top left:

MSX BASIC version 1.0 Copyright by Microsoft 28815 Bytes free. Ok

The start up mode is SCREEN 0 (detailed later) and line 24 of the screen displays the words:

color auto goto list run

to remind users of the initial definitions of the five function keys. This line changes to show:

colour cload" cont list. run

Program 2 — shows all 256 characters

100 COLOR 15,4,4:SCREEN 1

110 FOR F%=0 TO 19

120 FOR J%=0 TO 13

130 IF F%*14+J%<256 THEN VPOKE &H1842

+F%*32+J%*2,F%*14+J%

when the shift key is pressed. Function keys 1 to 5 become F6 to F10 when pressed with the shift. This visual reminder of the key definitions can be switched off and on with the KEYOFF and KEYON com-

14Ø NEXT J%, F%

mands.

All MSX micros have 16K of built-in video RAM which is separate from the main memory. There is no reduction in the amount of memory free when you are in high-resolution or multi-colour modes. There are four screen modes which are specified by the first parameter of the SCREEN command.

The 16 colours available are:

0 transparent

1 black

2 medium green

3 light green

4 dark blue

5 light blue
6 dark red

7 cyan

8 medium red

9 light red

10 dark yellow

11 light yellow

12 dark green 13 magenta

14 grey

15 white

Program 1 displays bars of all the 16 colours on the highresolution screen. After a short delay, the computer returns to the text mode.

Program 1 — displays bars of all 16 colours

100 COLOR 15,1,1:SCREEN 2

110 OPEN "GRP: "AS#1

12Ø PRESET (35,5)

130 PRINT #1, "A CORRECTLY ADJUSTED SE

TI

14Ø PRESET (35,15)

150 PRINT #1, "SHOWS 15 COLOURS & BLAC

K"

16Ø CLOSE #1

17Ø FOR G%=2 TO 15

18Ø COLOR G%

19Ø LINE (G%*16-15,3Ø)-(G%*16,184),,8

F

200 NEXT G%

210 FOR D%=1 TO 12000:NEXT D%

Microsoft has obviously given a great deal of thought to the character set as it contains all the usual letters and figures plus many language, scientific, game and graphic shapes. The German umlauts, the French accents, circumflexes a the mathematical symbols will be especially popular with schools.

Program 2 displays all the

Program 2 displays all the 256 charactes on the screen.

SCREEN 0 is the first of the two text modes and gives a format of 24 lines each with up to 40 characters. All UK MSX micros default to 37 characters per line when switched on.

The WIDTH command selects the number of characters per line. It is possible to get the full 40 characters by entering WIDTH

All Japanese MSX micros default to 40 characters. Perhaps our Far East friends know that very few UK TV sets have a picture width control which can be adjusted by the customer and that many sets therefore "overscan".

Each character displayed in this mode is made up of 6 x 8 pixels. The built-in character set stores 8 x 8 pixels, but in this mode the right-most two columns of pixels are not

displayed.

When the screen mode is changed to 0 or 1, the character set is copied from ROM (Read Only Memory) to RAM (Random Access Memory) so this makes it possible to re-define any of the 256 characters. This feature allows special characters to be displayed without going into high-resolution mode. Two of the sixteen colours can be used in this screen 0 mode — one for foreground and one for background.

SCREEN 1 is the second of the text modes and gives a format of 24 lines each of up to 32 characters. Again the switch-on default width is less than the maximum possible — the default for screen 1 is 29 characters per line. To get the full number of characters per line enter WIDTH 32, but on nearly all UK TVs the left-most character would be off the edge of the screen.

The MSX specification defines the use of two colours in SCREEN 1 mode. In later

Program 3 — demonstrates the speed of MSX computers

100 COLOR 15,1,1:SCREEN 2

11Ø FOR F%=1 TO 1ØØ

12Ø LINE (RND(1)*25Ø, RND(1)*19Ø)-(RND

(1)*25Q, RND(1)*19Q), RND(1)*14+2, BF

130 NEXT F%

issues of MSX COMPUTING, we will describe a programming method which allows all 16 colours to be displayed.

At present the character set is split up into 32 groups of eight characters and the foreground and background colours of each group are the same effectively giving a two colour display. Our method will show how to alter the foreground and background colour of all these 32 groups.

Remember it is also possible to redefine the shape of each character in screen 1 mode.

SCREEN 2 is the highresolution mode which has 256 x 192 pixels definition. All 16 colours can be displayed at the same time.

The horizontal colour resolution is eight dots which means that in every group of eight adjacent horizontal dots, there can only be one foreground colour and one background colour. Any two of the 16 colours can be used for each group of 8 dots. The vertical colour resolution is one pixel, therefore any of the 16 colours can be placed next to each other vertically. There are many commands for creating hi-resolution patterns and they are all very flexible.

Program 3 demonstrates the speed of the computer and also shows all the colours. First hte computer is put into SCREEN 2 (hi-res mode) and then 100 boxes of random sizes and colours are displayed.

There is a command which allows printing of normal text on the hi-res screen. As the text can be placed anywhere on the 256 x 192 grid, this allows much greater control over where it is printed than in either of the text modes.

SCREEN 3 is the multicolour mode and has 64 x 48 resolution. Each of the 3072 pixels on the screen can be in any of the 16 colours.

When text is printed to this screen, all the pixels that make up the characters turn on one

0 8 x 8 unmagnified 1 8 x 8 magnified 2 16 x 16 unmagnified 3 16 x 16 magnified

The numbers refer to the number pixels make up the sprites e.g. a mode 2 sprite has 16 x 16 = 256 pixels. Magnified means that every pixel is the size of a square of four pixels,

Program 5 — a knight-shaped sprite bounces off the screen edges

100 COLOR 15, 1, 1:SCREEN 2,3

11Ø S\$="":FOR F%=Ø TO 31:READ A\$

12Ø S\$=S\$+CHR\$(VAL("&H"+A\$)):NEXT F%

13Ø SPRITE\$(Ø)=S\$

14Ø DATA Ø, 1, 6, 1D, 2A, 2A, 2A, 1F, 4C, F7, F

Ø, 18, 7, 2, 3E, FE, 18, 8F, 65, 11, C9, A9, B1, F

3,7F,9F,31,41,81,81,F9,FD

15Ø X%=128:Y%=96

16Ø XS%=1:YS%=1

17Ø PUT SPRITE Ø, (X%, Y%), 13

18Ø X%=X%+X5%: Y%=Y%+Y5%

190 IF X%<0 OR X%>210 THEN XS%=-XS%

200 IF Y%<0 OR Y%>156 THEN YS%=-YS%

21Ø GOTO 17Ø

of the SCREEN 3 pixels which are equivalent to a square of sixteen SCREEN 2 mode pixels. Since the letters are made up of 8 x 8 dots, and the screen has 64 x 48 pixels, you can get 6 rows of eight characters in this mode. This is useful for title pages etc.

Program 4 draws 200 lines at random positions on the screen and shows the size of the pixels in the SCREEN 3 mode.

MSX computers can display up to 32 sprites at the same time and can remember up to 256 'sprite patterns'. Sprites are characters whose shape, colour and position can easily be defined. They can be placed much more exactly than characters can and there are built-in collision detection routines. There are four sprite modes, these are specified by the second parameter of the SCREEN command.

The four sprite modes are combinations of large or small sprites and magnified or unmagnified sprites. The modes are as follows:

so the sprites become four times their normal size.

When using a 8 x 8 size, the computer can store up to 256 sprite patterns. When using a 16 x 16 size, the computer can store up to 64 sprite patterns. Remember — only 32 sprites can be displayed at the one time.

New Series NO SE N

Program 5 shows a sprite in the shape of a knight bouncing off the edges of the screen. To stop the program press the CTRL and STOP keys at the same time.

Try changing both the occurances of the number 1 in line 160 to 2 and note that the sprite moves faster.

Program 4 — draws 200 lines and shows SCREEN 3 pixel sizes

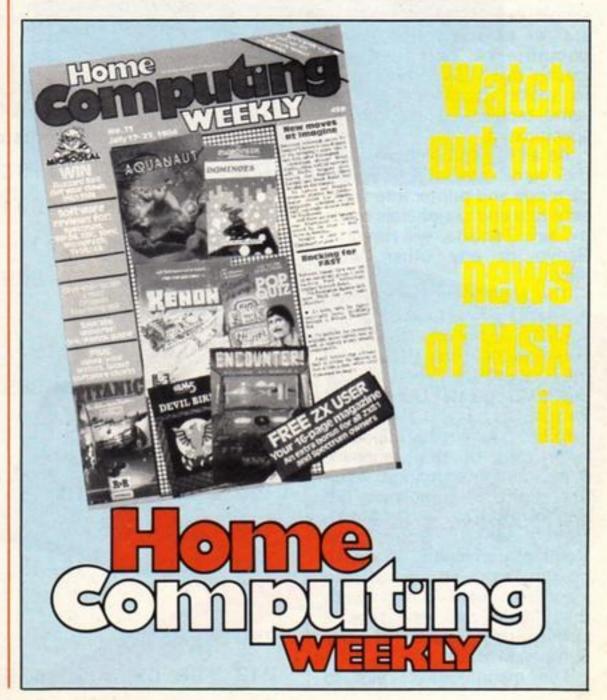
100 COLOR 15, 1, 1: SCREEN 3

110 FOR F%=1 to 200

12Ø LINE (RND(1)*256, RND(1)*192)-(RND

(1)*256,RND(1)*192),RND(1)*15+1

130 NEXT F%





ABRASC

Available Through: Good Distributors & Retailers

Including, J.MENZIES, TIGER Distribution, SDL

A TOUCH OF MAGIC ABRASCO The Grange Barn, Pikes End, Eastcote, Middlesex HA5 2EX, Tel:01-866 925



OH MUMMY!!

Your party of archeologists enter the pyramid in search of the mummies of the pharoah's household. There are five burial chambers containing treasure, secret scrolls, keys, royal mummies and some nasty surprises. To pass from one chamber to the next, you must find the key and royal mummy, but beware, you may uncover a guardian, who will chase your group to avenge your desecration!!

A Machine Code game for those with nerves of steel and great courage.

> Price (ZX81 & SPECTRUM) £4.95

DISCO DAN

Can poor Dan decontaminate the atomic fuel rods in time?! In this new 3D machine code game, you control Dan Dan The Atomiser Man, jumping him from disc to disc, trying to reduce the ever increasing radiation levels, in the atomic pile. However, Up'n'Atom'Arry and his gang of vagrant particles are thirsting for the energy in your back pack, which makes life a bit awkward at times. Then there's Ron the Rapacious Robot, not the sort to meet in a dark alley (or anywhere else for that matter)!!

> Price (48K SPECTRUM) £4.95

All prices include postage and packing. All cassettes despatched within 48 hours of receipt of order. Access orders welcome.

DEALER ENQUIRIES WELCOME

GEM SOFTWARE, UNIT D, THE MALTINGS, STATION ROAD, SAW-BRIDGEWORTH, HERTS. Telephone (0279) 723567/723518.

Velnor's Lair 48K Oric/ **48K Atmos** £6.95

Quicksilva, 13 Palmerston Rd, Southampton, Hants SO1 1LL

Ouicksilva's first adventure game for the Oric is a classic alltext version, similar in layout to most others of its type. You choose the role of a warrior, priest or wizard in a quest to destroy the evil Velnor. Your journey will take you through dark caverns and passages where untold dangers lurk but vast treasures may also be found.

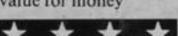
If you like adventures then Velnor offers a good challenge, with logical thought and inspiration both playing their part. An option to save the game at any stage is provided which worked satisfactorily and is probably

essential if you do not have the patience to solve the puzzle in

There is little assistance given and, by the nature of the game, this is correct. But perhaps some fundamental explanations of the very simplest moves and commands should have been supplied for the novice. The descriptions of your surroundings are quite realistic. If you are with children make sure they are not frightened by goblins, trolls or much worse nasties.

All in all, a fairly standard adventure without too many frills. P.S.W.

75%
75%
N/A
80%



Star Force Seven **32K BBC £9.99**

Argus Press Software, No. 1 Golden Sq, London W1R 3AB

Another in the Mind Games series. My major criticism of this program is that the information screens, while clear and unambiguous, are most uninspiring. Even the major planet display is not very exciting.

The game is, however, a fully implemented, war based, strategy game and will appeal to those who enjoy a good long thoughtful battle amongst the stars. The aim is to destroy the home planet of the Zurgs or to capture, and keep, 25 of the other planets in the galaxy.

You start by choosing the proportions of each type of fighting ship to commission for

the battle. Then you progress by three major stages, expressed as screens. The computer screen can give intelligence, energy status and fleet details whilst the navigational one allows star jumping, orbiting and attacking. If you are in orbit you may bombard, asault or retire. Notice that there is no chance of a friendly approach! In battle the screen is graphically much better as you watch the various ships being destroyed before your eyes. An interesting, yet not too long-winded, game to be sure.

nstructions	55%
playability	80%
graphics	60%
value for money	70%

Firelady plus Snakes and Ladders TI-99/4A £5

The first is quite long and takes some time to load. Judging by the awkwardness of the instructions it was written by a couple of youngsters and viewed in that light it is a very creditable effort. I don't know why the main character is a "fire-lady", but due credit for including the. girls in the heroism charts.

A block of flats is ablaze and you must climb 10 floors to save 2 an old man. You can play against the computer or another player and your movements are determined by dice. In fact, it's actually a revamped Snakes and Ladders - intelligently done, despite odd macabre moments. If you land on a smaller fire you must guess how many gallons of water are needed to extinguisher, and you've saved someone's life so you gain another throw; a skull and crossbones, and you'll need a '6'; and of course there jare ladders.

By the same authors, the second program, also long, is a bog-standard Snakes and Ladders.

Both games make good, colourful use of graphics, and are aimed squarely at theryounger users. P.B.

instructions	50%
playability	75%
graphics	85%
value for money	85%

Puzzies and adventures

Now get out of that! Our reviewers have tackled this software before, and this is what they think

Gatecrasher 32K BBC £6.95

With a chance of winning 1200 function can be used to swivel on completion of this game, the gates at random. enthusiasm overwhelmed me.

with a screen full of complex the £200 will be well earned. passages and angled gates. You are at the top clutching a barrel which you can roll left and right instructions or drop down. If you drop it, it playability falls down passages bouncing off graphics the gates at right angles, falling value for money into one of eight holes at the bottom. When the barrel drops on any gate it swivels to slant in the opposite direction.

The object is to fill all nine holes with 20 barrels, which is not as easy as it sounds. If a barrel is accidentally dropped in a full hole all the barrels in that

hole are wiped out. At first the game seems easy, but when you Quicksilva, 13 Palmerston Rd, have only one hole left to fill you Southampton, Hants SO1 1LL realise it isn't. If you're desperate the earthquake

After seeing the difficulty of On loading you are presented the later stages I can safely say

> M.B. 80% 60% 60% 80%



The Mystery of the Java Star 32K BBC/ Electron £7.95

Shards, 189 Eton Rd, Ilford, Essex IG1 2UO

If you like puzzles then this multi-faceted program may be just your cup of tea. To describe this as a program is far too mean, for the package comprises four individual, yet linked, games of different types and

The first is called Bristol and involves the jigsaw type skills of piecing together a message. In London you must wander around researching your information ready to go exploring, the aim here being to get just the information you need at minimum cost in time and money. In Jamaica you go looking for an island to match your research and can survey those you find before landing to charter a boat.

Finally, you dive in your; chosen location on the Seawitch in the hope that you find the ultimate goal — the beautiful Java Star ruby and all the gold, that the wrecked ship carried. When you consider the cost of individual programs like this you can only conclude that this is exceptional value for money and, unlike short action games, the work involved is likely to take a number of days if not weeks. Its claim to be educational is reasonably fair too. Well done Shards!

75% instructions 90% playability 90% graphics 100% value for money

D.C.

THOUGHTS & CROSSES

37 MARKET STREET, HECKMONDWIKE, WEST YORKS.
Telephone: 0924-402337

RDWARE & AL	DD ONS	£125.00	P.S.S.S.T. Jet Pac	Ultimate Ultimate	5.50 5.50	4.95	Olympics Derby	CRL	5.95 5.95		Android 2 M. Code Tutor	Vortex New Gen.	6.90	6.20	Zylogon Cuthbert/Walkabar	Big G Microdeal	6.9
ectrum 48K clair Microdrive		£125.00	Lunar Jetman	Ultimate		4.95	Omega Run	CRL	5.95		Trashman	Q/Silver		7.15	Crisis Countdown	Microdeal Spectre	7.95
clair Interface 1		€45.00	Atic Atac	Ultimate	5.50	4.95	Stargazer Secrets	CRL	5.95	THE PROPERTY.	Road Roller	Knight	7.95		Motor Mania	Audiogen	8.96
clair Microdrive (Cartridges	€4.50	Trans Am	Ultimate	5.50	4.95	Fifth Country	CRL	9.95	-	The Quill	Gilsoft	14.95		Aztec Challenge	Cosmic	8.96
Shot Joystick		£15.00	Sabre Wolf	Ultimate	9.95	8.95	Great Detective	CRL	5.95	5.35	Turbo	Aztec ISP	14.95		Megawarz	Paramount	7.50
Stick Joystick		€12.00	Cookie	Ultimate	5.50	4.95	Scuba Dive Jungle Trouble	Durrell	5.95	5.35	Scope Swoop	Micro Pwr.	17.95		Brands	Alligata	7.9
Ace Joystick		£10.00	Pool	CDS	5.95	5.35	Harrier Attack	Durrel	5.95	5.35	Cybertron Mission	Micro Pwr.	6.95		Mr Wimpy	Ocean	6.9
pston Joystick		£11.50	Stonkers Zzoom	Imagine Imagine		4.95	Psi Spy	Postern	7.95	7.15	Felix in Factory	Micro Pwr.	6.95		Omega Run Derby Day	CRL	7.95
kshot II Joystic		£11.50	15 TOOLS		5.50	00000	Here Comes Sun	Alligata	7.95	7.15	Ghouls	Micro Pwr.	6.96		Grandmaster	Audiogenic	
ston Interface ronics Progran	nmable Interf		Jumping Jack Alchemist	Imagine Imagine		4.95	Skull	G/Machine	6.96	6.25	Krystals of Zong	PSS	7.95		Jupiter Landing	Commodore	
ronics Dual Po		£12.00	Cosmic Cruiser	Imagine	5.50	4.95	Champions	Peaksoft	6.95	6.25	CONTRACTOR OF THE PROPERTY OF	PSS	7.95		Lazarian	Commodore	
e Shot Program	mmable Interf		Cavern Fighter	Bug Byte		5.35	Blue Thunder	R. Wilcox	5.95	5.35	Defender 64	Intercepter	7.00		Sea Wolf	Commodore	9.90
oridge Program	nmable Interfa		Birds & Bees	Bug Byte		5.35	Android Two	Vortex	5.95	5.35	Siren City China Miner	Intercepter	7.00		Omega Race	Commodore	
loystick & Tap	ie .	£29.00	The Castle	Bug Byte	The same of the same of	6.95	Dennis thro Drink	Vortex	5.95	5.35 4.95	Heroes of Karn	Intercepter	7.00	27201	Le Mans	Commodore	
ronics Light Pe		£18.00	Mr Wimpy	Ocean	5.90	5.30	Superchess 3	CP	8.95	8.00	Token of Gall	Intercepter	7.00		Pinball Spectacular The Hobbit		14.9
ston Centroni		€ .	Eskimo Eddie	Ocean		5.30	Death Cruiser	NHS	5.95	5.35	Aquanaut	Intercepter	7.00		Word Power	Sulais	9.9
ston Centroni	cs interrace a		Royal Birkdale Digger Dan	Ocean Ocean	5.90	5.30	Tutenkhamen			5.40	Spider & Fly	Intercepter	7.00		Space Shuttle	Microdeal	8.0
			Pogo	Ocean		5.30	Kosmic Kanga	Micromania		5.35	Wallie to Rymeland		7.00		First Steps	Mirrosoft	8.9
			Hunchback	Ocean	6.90	6.20	Evolution	Microsphere	6.95	6.25	International Soccer	The state of the s			Ultisynth 64		14.9
TRUM			Moon Alert	Ocean	5.90	5.30	Wheelie	Microsphere	5.95	5.35	Squasha Frog	Alligata	7.95		Colossus Chess	CDS	9.9
	RRP	Our Price	Kong	Ocean	5.90	5.30	Train Game	Microsphere		5.35	Blagger Damsel in Distress	Alligata	7.95		Adventure Quest	Level 9	9.9
	Digital	5.50 4.95	Cavelon	Ocean	5.90	5.30	3D Tunnel			5.35	Damsel in Distress Bat Attack	Alligata Alligata	7.95 7.95		Collosal Adventure		9.9
de Tutor		4.95 13.50	Chinese Juggler	Ocean	5.90	5.30	Trashman Missile Defence		5.95	5.35	Killer Watt	Alligata	7.95		Lords of Time	Level 9	9.90
Olympics	Database	5.95 5.35	Fighter Pilot	Digital	7.95	7.15	Missile Defence Kong	Anirog Anirog	5.95 5.95	5.35	Aztec Tomb	Alligata	7.95		Dungeon Adventur Snowball	Level 9	9.9
Point	Psion Martach	7.95 7.15 5.95 5.35	Night Gunner 3D Death Chase	Digital	6.95	6.25	Jack & Beanstalk	Thor	5.95	5.35	Golf	Alligata	7.50	110000	Space Pilot	Anirog	7.9
ey of Hope	Martech Bug-Byte	6.95 6.25	Codename Mat	Micromega Micromega		6.25	Football Manager		6.95		Voodoo Castle	Adventure		8.95	Physics	Ivan Berg	9.9
	Microgen	9.95 8.95	Splat	Incentive		4.95	Krakatoa	Abbex	5.95	5.35	Vultures	Morrison		6.25	English Language	Ivan Berg	9.9
rfile MF Prnt		9.95 17.95	Mountains of Ket	Incentive	5.50	4.95		A&F	6.90	6.20	Cyberman	Morrison	6.95	6.25	Biology	Ivan Berg	9.9
Basic 1.8		1.00 10.00	1984	Incentive		4.95	Oracles Cave	Doric	7.95	7.15	The Pyramid	Fantasy	6.50		History 20th Cent	Ivan Berg	9.9
y Breakout		5.55 4.99	Millionaire	Incentive	5.50	4144	The Forrest	Phipps	9.95	8.95	Super Dogfight	Terminal	7.95		Maths 1	Ivan Berg	9.9
Things/Sea		5.95 5.35	Temple of Vran	Incentive	5.50	0.01000	Snooker	Visions	8.95	8.00	Revenge Mut. Cmls		7.50		Maths II	Ivan Berg	9.9
hrottle		6.95 6.25	Meteroids	DKT		4.50	Taswide Tasword 2	Tasman Tasman	5.50	4.95	Attack Mut. Camels Hower Boyver	Liama	7.50		Geography Chemistry	Ivan Berg Ivan Berg	9.99
100	Q/Silver	6.95 6.25	Dictator	DKT		4.50	Tasword 2 Hunter Killer	Protek		7.15	Matrix	Llama		6.75	High Flyers	Commodore	
slane et Attack	Q/Silver Q/Silver	6.95 5.95 6.95 6.25	Mozaics Speed Dual	DKT	6.95 5.95	6.25	Airliner	Protek		5.35	Gridrunner	Llama	5.00		Munchman	Solar	7.9
nsbane	Q/Silver		Zig Zag	DKT	4.95	4.50	Use & Learn	Microl	9.95	8.95	Laser Zone	Llama	7.50	100000000000000000000000000000000000000	Tank Atak	Supersoft	8.9
nowman	Q/Silver		Push Off	S/Proj	5.95			Picturesque	7.50	6.75	Sting 64	Q/Silver	7.95		Crazy Kong	Supersoft	7.95
Section 1	Q/Silver	6.95 6.25	Ometron	S/Proj	5.95	5.35	Ed Assembler	Picturesque		7.65		Q/Silver	7.95		3D Glooper	Supersoft	8.9
Zone	Q/Silver	6.95 6.25	Jet Set Willy	S/Proj	5.95	5.35	HiSoft Pascal		5.00			Q/Silver	7.95		Slix	Supersoft	8.95
s Designer		4.95 13.00	Tribble Trouble	S/Proj	5.95	5.35	Dev Pack 3	Hi Soft	4.00		Quintic Warrior	Q/Silver	7.95		Spriteman	Interceptor	7.00
III	Artic		Manic Miner	S/Proj			Volcanic Dungeon		5.00		and the second of the second o	Q/Silver	7.95		Metroblitz Dictator 64	PSS	7.95
ers	Artic	4.95 4.50	CARCEL EXPENSION	S/Proj	5.95		Black Crystal Devil Rides in	Camell	7.50 5.95	6.75 5.35	Frogrun 3D Time Trek	Anirog Anirog	5.95 7.95		Dinky Doo	S/Projects	7.9
n Apple	Artic Artic		The Pyramid Doomsday Castle	Fantazy Fantazy	5.50	6.95	St Bernard	Cammell		-	Indian Attack	Anirog	5.95		Valhalla		14.9
Tutor			Beaky/Eggsnatch	Fantazy	5.50	4 95	Valhalla					Anirog	7.95		Splat	Incentive	6.50
ians	Artic	4.95 4.50	Penetrator	M/House	6.95	5.95	Snowball	Level 9	9.90	8.90	Galaxy	Anirog	7.95	7.15	Wheelin Wally	Intercepter	
Boyver	Artic	6.95 6.25	Classic Adventure		6.95	6.25	Durigeon Adv.	Level 9		8.90	Skramble	Anirog		7.15	Burger Time	Interceptor	
ongs Laundry	Artic	6.95 6.25	4D Terror Daktil	M/House	6.95	6.25	Collosal Adv.	Level 9			Cosmic Commando			5.35	Simons Basic	Commodore	
ker	Artic	5.95 5.35	Mugsy	M/House	6.95	6.25	Adventure Quest	Level 9			Hex pert	Anirog		7.15	Easy Calc Easy File	Commodore	
Cup Soccer		6.95 6.25	Abersoft Forth		14.95	3.00	Lords of Time 1st Steps Mr Men	Level 9 Mirrosoft			Moon Buggy Flight Path 737	Anirog Anirog	7.95	7.15	Precision Superbse	Commodore	
of Things nels Revenge	Crystal	7.50 6.75 6.50 5.85	Melbourne Draw	M/House M/House			Psytron	Beyond		7.15		Anirog	7.95		Practicalc		39.96
on of Body	Crystal	6.50 5.85		M/House	14 95	12.00	Lords of Midnight				Hunchback	Ocean		6.20	Practifile		39.96
eon Master	Crystal		Blade Alley	P.S.S.	5.95	5.35	Sales Ledger				Carried State of the Control of the	Ocean		6.20	Transact	Dialogue	30.00
Wooluf	Crystal	6.50 5.85	M Coder II	P.S.S.	9.95	8.95	Purchase Ledger					DKT	6.95	6.25	Invostat		30.00
tors Pack	Sinclair	6.95 6.25	Les Flics	P.S.S.	6.95	6.25	Stock Control			13.00		Softek	7.95		DFM Database		24.00
	Psion		3D Seidab Attack	Hewson	5.95	5.35	Apocalypse	RadShift	9.95	8.95	Cosmic Convoy	Taskets		6.20	Son of Blagger		7.95
	Psion		Heathrow	Hewson			Word Spell	Griffin	9.95	8.95	Super Pipeline	Tasket		6.20	Eagle Empire	Alligata	7.95
lc .	Psion		Night Flight II	Hewson	7.95		DFM Database The Quill	Dialogue 1	4.95	13.00	Gyropod Jammin	Tasket Tasket		6.20	Jumping Jack Bathtime	PSS PSS	8.95 7.95
nide	Psion Psion		3D Lunar Attack Night Driver	Hewson	5.05	F 25	I who would be king				The state of the s	Cosmi		8.00	Egbert	Games M.	7.95
oids ammon	Psion		Fantasia Diamond	Hewson	7.95		Metagalactic Llama	Salamander	6.95	6.25	Fire Ant	Mogul		7.15	Outback	Paramount	7.50
Record Cont.			3D Space Wars	Hewson	5.95		Matrix	Salamander	6.95			Shepherd	6.50	5,85	Grabber	Microdeal	8.00
Simulation	Psion		Superspy	Shepherd	6.50		Phoenix		5.50	4.95	Ship of the Line	Shepherd	6.50	5.85	Star Trooper	M/House	7.95
Bus A/C	Sinclair	12.95 11.60	Ship of Line	Shepherd	6.50	5.85	Howzat	Wyvern				Bubblebus	6.99		Slinky	Cosmic	8.95
IS Chess	I.S.		Urban Upstart	Shepherd	6.50		Titanic	RBR				Bubblebus	5.99		Beach Head	Access	9.95
ole		5.95 14.35	Transylvanian Twr.		6.50		Ad Astra				Exterminator	Bubblebus		5.35	Arabian Nights Space Pilot	Intercepter Anirog	6.95 7.95
ered Flag	Psion	6.95 6.25		Silversoft	5.95	3.95	Multifile Olympics 84					Bubblebus DKT		6.30	Sheep in Space	Llamasoft	7.50
goes Skiing	S/McMillan		Ground Attack	Silversoft Silversoft	5.95		Olympics 84 Paintbox					Lothloren		6.25	The Boss	Peaksoft	8.95
to Read 1 to Read 2	S/McMillan	9.95 8.95	Starship Enterprise		5.95	4.50	Screen Machine	Printer/P	8.25	7.40	Twin Kingdom Valley			8.50	Quest for Quintana		8.95
	S/McMillan			Silversoft	5.95	3.95	Quest of Holy Grail	Dream			Danger Ranger	Microdeal		7.20	Rolloverture	Sunrise	8.95
			Armageddon	Silversoft	5.95	3.95	Dungeon Builder	Dream	9.95	8.95	Quasar	Voyager	5.99	5.35	Caesar the Cat		8.95
	S/McMillan	9.95 8.95	Robot Riot	Silversoft	5.95	3.95	Gilligan's Gold				Altair 4	Voyager	5.99		Sob Fight	Microprose 1	
	S/McMillan	9.95 8.95	Brain Damage	Silversoft	5.95	3.95	Incredible Hulk			8.95	Cosmic Cruiser	Imagine		4.95		DKT	5.95
			Sam Spade	Silversoft			Pinball Wizard			5.35	Pedro	Imagine		4.95	Loco	Alligata	7.95
al	S/McMillan			Silversoft	5.95		Bridge Player			8.00	Arcadia	Imagine		4.95	Zodiac Speech Synth		7.00
Punctuation			Exterminator	Silversoft			Inferno War of Worlds		6.50 7.95		Armageddon Rollerball	Ocean		6.20	Hulk	Adv Int	9.95
h Marks	Sinclair Sinclair		Mission Impossible Confrontation		5.95	- 1 Server	War of Worlds Empires		9.95		Scuba Dive	Ocean Durrell		6.25	Acas +		8.95
postrophe Letters	Sinclair Sinclair		Special Operations		5.95			- parie	2.20			Big G		6.25	House of Usher	Anirog	7.96
			Johnny Reb	Lothlomen	5.50	4.95				-	Fab Wanda	Games		7.15	Word Wizard	Bubblebus	7.00
	Sinclair	7.95 7.15	Paras	Lothlomen	6.95	6.25	COMMODORE 64				Pilot 64	Abbex		6.75	Quizzer	Bubblebus	7.00
				Lothlomen	5.50	4.95	Wimbledon	Merlin	7.95	7.15	Manic Miner	S/Projects	7.95	7.15	Poster Printer	Bubblebus	7.00
			Dreadnoughts				Gilligan's Gold	Ocean	6.90	6.20	Horace goes skiing	M/House	5.95	5.35	Label Printer	Bubblebus	7.00

Large range of programs available for BBC, Electron MTX, VIC-20 at discount prices - please send for list

Please accept my order for:	Despatch to:
1	Name:
2	Address:
3	
4	***************************************
5	enclosed.
P.O./Cheque No for £	
Signed	

QUICKSILVA LATEST NEWS No.1 SECTION QUICKSILYA

All titles available from Quicksilva Mail Order, P.O. Box 6, Wimborne Dorset BA21 7PY.

USIVE • NEW PROGRAM PROBE EXCLUSIVE • NEW PR

Meet the perils of refuse in TRASHMAN - Commodore 64 £7.95

The job may look easy but only you know the hazards. Speeding cars, cyclists, vicious dogs, over-reacting in the transport cafe or one too many in the pub! A Trashmans lot is not an easy one. Discover just how difficult for yourself in TRASHMAN on the Commodore 64.

ESCAPE & 3D TUNNEL -Commodore 64 £7.95 each.

Follow the thrills!

What lies in the tunnel's depths? Flying bats, leaping toads, scurrying rats, crawling spiders and there may be more... All appearing live in the dreaded 3D TUNNEL.

Meanwhile, in the maze on the estates, what horrors lurk in the hedges? Where is the axe hidden? What prehistoric terrors will trap you? Can you survive the dinosaurs and the pterodactyls? Find out in ESCAPE if you dare! Available on the Commodore 64.

GATE CRASHER - BBC/ **ELECTRON £6.95**

An intoxicating game for the BBC and ELECTRON.

Do you enjoy being killed by aliens? Has your keyboard melted away under the heavy artillery? Do you have nightmares of swooping birdmen?

If so this is the game for you ... it has none of these!

GATE CRASHER is a game of skill and strategy that will test your mind to the limits, PLUS you will also have the opportunity to WIN £200!





WARNING: These programs are sold according to QUICKSILVA Ltd's terms of trade and conditions of sale, copies of which are available on request.





supplied in a box with booklet.

and leading multiple retailers and specialist computer stores.

ELECTRO-ART - Electron £14.95 Son of BEEB-ART!

Create your own works of art with this simple to use, yet sophisticated feature-rich art tool which includes a full machine code 'Paint' routine allowing you to colour fill any shape. ELECTRO-ART is supplied in a box with a full instruction manual.

VELNOR'S LAIR - Oric 1/Atmo £6.95

Battle the evil Wizard Velnor in the caves of Mount Ellc. VELNOR'S LAIF is simply the most enjoyable adventure you will play on your computer!

MINED OUT For Bill the worm. Oric 1/Atmos £6.95

Following his success on the SPECTRUM, ELECTRON, BBC, LYN) and DRAGON, Bill the worm is now appearing in MINED OUT on the ORIC 1/ATMOS computers.

COMING SOON

ANT ATTACK - Commodore 6 £8.95

The outstanding Soft-Solid 3D graphics of the breathtaking city of Antescher are now available on the Commodore 64. Battle the giant ar to save your hero!

COMING SOON

FRED - Commodore 64 £7.95

Action beneath the pyramids! Fearless Fred, the Intrepid Archaeologist, searches the creepy catacombs below the torrid tomb of Tootiecarmoon!

COMING SOON

GAMES 84 – Spectrum 48K

From the advanced programming project division of the SOFTWARE STUDIOS - GAMES 84, an Olympia spectacular!



Mined-Out 48K Oric/ **Atmos £6.95**

Quicksilva, PO Box 6, Wim- included for all us failures. bourne, Dorset BH21 7PY

brain than brawn and one false move can lead to disaster. You minefield over which you must carefully pick your way to reach the next level. The snag is that you cannot see the mines and you only have one chance. All is not lost, however, since you know if one, two or three mines lie next to you and by getting the old grey matter working, it is possible to find a safe path.

As you progress, various complications arise but ultimate success is achieved when you reach level 8 and are permitted to rescue the famous star Bill the Worm. A neat reply facility is

A clever game, simple to pick up, but requiring skill to master. A welcome change from space For more thoughtful players it wars, Mined-Out requires more should provide some hours of diversion.

My only quibbles are that only are situated at the start of a a fast load version is available and the inlay card, although amusing, did not describe the game very accurately. P.S.W.

instructions	80%
playability	85%
graphics	80%
value for money	90%

Gatecrasher **48K Spectrum** £6.95

Quicksilva, PO Box 6, Wimbourne, Dorset BH21 7PY

No, it's not party time! You must drop barrels into a maze of tunnels, trying to get one barrel into each of the nine boxes at the base of the maze. However, the barrels look and sound like ball bearings!

If a barrel drops on to a gate it becoming much more difficult. moves in the direction the gate is facing and flips it over.

A box will empty if a second instructions barrel falls into it - and you're playability limited to only 20 barrels per level, so study the maze care- value for money fully! You are able to rotate the maze up or down and there's an earthquake feature which randomly alters some of the gates.

Levels five and six add a difficult twist. You must sort the barrels into numerical order. If a barrel drops into a box it swops places with its neighbour on the

The keys are user-definable making the barrel-dropping machine easy to control. It's interesting that the screen shot on the inlay is from a different version of the game.

Enjoyable, simple at first but

70% 90% 70% graphics 70%



Ugh! **48K Spectrum** £5.95

Softek, 12/13 Henrietta St. London WC2

The Ice Age is coming so Ugh's got to stock up with food by stealing Ptery the Pterodactyl's eggs! Pterry, Rex the tyrano-saurus and Alison the aliosaurus drop tones on Ugh.

As Ugh you must climb the hill to get the eggs. You have an unlimited amount of spears in your cave - but you can only carry one at a time. When you pick up an egg you leave yourself defenceless. Your pursuers are stupid and would be easy to avoid if it wasn't so difficult to move - to get on to a different path you must press up or down with left or right and be in exactly the right position. The rocks are accurate so they're difficult to avoid.

Graphics are excellent. Score and lives left are displayed on a tablet of stone, in keeping with the prehistoric scenario. The game starts with an excellent title screen and unbelievable sound. The keys can be redefined, or you can use a wide variety of joysticks.

Unfortunately, Ugh!'s lasting appeal is questionable because the 'maze' is tiny and there only appears to be one screen display.

S.E. instructions 80% playability 65% 100% graphics 75% value for money



All-action arcade aces

These fun games are hot news. Test your arcade skill and experience against them

Encounter CBM 64 £9.95

Novagen

arcade-style game I have seen on next level. the CBM 64. It seems to be based The sound is excellent and on an arcade game which realy makes the game interesting. involves shooting line drawn Graphics are quite outstandtanks.

game in which you must locate movement. The explosions are and destroy flying saucers. The spectacular as debris flies all over display is a 3D picture with radar before twinkling away. and scanners below. Cyclinders on the battlefield deflect shots instructions from both yourself and the playability enemy craft. Sometimes missiles graphics home in on you. If you don't value for money destroy them immediately they smash into your shields.

Once you have killed all your enemies on one level you may go through a gate to the next one. You are propelled through a

hailstorm. If you are hit by one of the spheres you are returned to the last level. If you get through you are awarded an This must be about the best extra shield and sent on to the

ing. The 3D display is fast, Encounter is a full colour smooth and flicker-free in its

> 60% 95% 90% 90%



Horace Goes Skiing **Dragon 32**

Melbourne House, Church Yard, Tring, Herts HP23 5LU

Horace wants to go skiing — but the ski hut is on the other side of a busy road. He must cross the road to get some skis then cross back to tackle the slalom course.

The first part, crossing the road, is rather like Frogger, and the second part bears some resemblance to a car race game. The traffic is fast and furious, and you need a lot of patience and skill to reach the ski slope.

The graphics are excellent, among the best I've seen on the Dragon. The traffic is very convincing, with slow-moving lorries and speedy little motorbikes as well as cars and tractors. The flags and fir trees in the second stage are simpler but still very effective. The sound is also good, and not over-done for

The game can be played using the keyboard, or, preferably, a joystick. There are a few minor faults — the demonstration mode described on the cassette inlay didn't appear to exist, and there is a fairly long delay before the game re-starts after you lose a life on the road. Overall, though, it's a good, entertaining game.

instructions 75% 80% playability graphics 95% value for money 80%



Now that summer's finally here, all the insects are out and about and making the most of the warmer weather. So are you in this game.

You are a caterpillar and you spend most of the lazy hazy days of summer eating leaves. Your particularly favourite patch is the mushroom patch.

Eating leaves makes you grow at a miraculous rate. You can almost see yourself expand - it's a good thing that doesn't happen in real life! You must avoid bumping into your own body or colliding with mushrooms, or you'll lose one of your three lives. Once all your lives have been used up, the game ends.

Another obstacle to beware is the hedge bordering the

How it works

10 go ahead to print instructions 15-60 first set of variables set-up 70 clear screen

80 set screen colour to black 90-110 set text to white

120-150 define colours

160-240 define characters 250-320 second set of variables set-up

330-360 hedge displayed 370-400 score printed

410-440 patch number printed

450-480 number of lives printed 490-610 mushrooms displayed

620-710 leaves displayed 720-730 display caterpillar

740 check caterpillar position 750 check keyboard

760-800 check for movement

810-1120 define new screen positions

1150-1160 check new screen positions

1170-1180 display caterpillar in new positions

1190-1220 check new screen positions

1230-1300 you've eaten a leaf 1310-1580 a patch is completed 1590-1650 you bumped into your own body

1660-1700 you hit a mushroom 1710-1800 you went into the hedge

1810-1840 display number of remaining lives

1850-1930 have you run out of lives?

1940-2200 end of game

2210-2240 display score and screen messages

2250-2370 display instructions

The more more vou

mushroom patch. If you touch it the game ends.

Your first patch has 20 mushrooms and 10 leaves. Once you finish a patch, you move on to a new one with five more mushrooms and one more leaf. This makes each patch harder than the one before.

Control the caterpillar with the four cursor keys, keeping the alpha-lock button down. If you find the game too fast, stop the caterpillar moving by holding down any other key apart from the cursor keys.

Your score, patch number and number of lives are constantly displayed at the top of the screen. You score 10 points for each leaf you eat, and whenever you complete a patch you get a bonus score. The bonus depends on which patch you've completed and how many of your lives are left.

At the beginning of the game simple instructions are displayed, but if you decide to play again at the end of a game, the instructions won't be repeated.

Variables

NOM number of mushrooms NOL number of leaves PAT patch number

LI number of lives

SC score

O detect position of caterpillar COT change text to white

used to move J,F,A,B,O,Pcaterpillar

LEAF number of leaves eaten CHAR shape of caterpillars head

MS hold screen messages and score

positions of MS MD/MA MUSH display required number of mushrooms

Y/X positions of leaves and mushrooms

WM1 check positions of mushrooms tops

WM2 check positions of mushrooms stalks

LEA display required number of leaves

WAL check positions of leaves NOCD clear screen

DELAY produce short delay NU change colour of caterpillar's body

V change volume of sound **NUCD** clear screen

SO change musical notes display screen messages

1 REM ******* 2 REM *CATERPILLAR CRAWL*

3 REM BY 4 REM STUART LENKER

5 REM * 25TH APRIL 1984 * 6 REM

REM * HIGH-SCORE 2870 *

8 REM BY JULIETTE 9 REM *************

10 GOSUB 2250

15 NOM=20

20 NOL=10

30 PAT=1

40 LI=3

50 SC=0 60 0=32

70 CALL CLEAR

80 CALL SCREEN(2)

90 FOR COT=1 TO 8

100 CALL COLOR(COT, 16, 1)

110 NEXT COT

120 CALL COLOR(13,13,1)

130 CALL COLOR(14,16,1)

140 CALL COLOR(15,7,1)

150 CALL COLOR(16,11,1) 160 CALL CHAR(128, "AA55AA55AA55A

A55")

170 CALL CHAR(129, "081C3E7F7F3E0 808")

180 CALL CHAR(136, "18183C3C7E") 190 CALL CHAR(144, "000000183C7EF

FFF")

200 CALL CHAR(152, "3C7EFFFFFFFF7

E30")

210 CALL CHAR(153, "814224183C7E7

E30")

220 CALL CHAR(154, "3C7E7E3C18244

281")

230 CALL CHAR(155, "0162F4F8F8F46

201")

240 CALL CHAR(156, "80462F1F1F2F4

680")

250 J=0

260 F=1

270 A=4 280 B=2

290 0=1

ou eat, the

300 P=0

310 LEAF=1 320 CHAR=154

330 CALL HCHAR(2,1,128,32)

340 CALL HCHAR(24,1,128,32)

350 CALL VCHAR(2,1,128,23)

360 CALL VCHAR(2,32,128,23)

370 M\$="SCORE-"&STR\$(SC)

380 MD=1

390 MA=1

400 GDSUB 2210

410 MS="PATCH-"&STRS(PAT)

420 MD=1

430 MA=13

440 GDSUB 2210

450 M\$="LIVES-"&STR\$(LI)

460 MD=1

470 MA=23

480 GDSUB 2210

490 FOR MUSH=1 TO NOM

500 RANDOMIZE

510 X=INT(31*RND)+1

520 IF XK3 THEN 510

530 Y=INT(22*RND)+1

540 IF Y=1 THEN 530

550 CALL GCHAR(Y,X,WM1)

560 IF WM1<>32 THEN 500

570 CALL GCHAR(Y+1,X,WM2)

580 IF WM2<>32 THEN 500

590 CALL HCHAR(Y,X,144)

600 CALL HCHAR(Y+1,X,136)

610 NEXT MUSH

620 FOR LEA=1 TO NOL

630 RANDOMIZE

640 X=INT(31*RND)+1

650 IF XK3 THEN 640

660 Y=INT(23*RND)+1

670 IF Y=1 THEN 660

680 CALL GCHAR(Y,X,WAL)

690 IF WALK>32 THEN 630

700 CALL HCHAR(Y,X,129)

710 NEXT LEA

720 CALL HCHAR(A,B,CHAR)

730 CALL HCHAR(A-F,B-J,152)

740 IF Q<>32 THEN 1190

750 CALL KEY(0,X,Y)

760 IF Y=0 THEN 1130

770 IF X=83 THEN 810 780 IF X=68 THEN 890 790 IF X=69 THEN 970 800 IF X=88 THEN 1050 ELSE 720 810 B=B-1 820 F=0 830 J=-1 840 P=-1 850 □=0 860 CHAR=156 870 CALL GCHAR(A,B,Q) 880 GOTO 720 890 B=B+1 900 F=0 910 J=1 920 P=1 930 0=0

Hints on conversion

If you are going to try and convert this program to another machine, then remember the following points:

The Texas has a 24 by 32 graphic screen.

2 It has a 24 by 28 text screen.3 It uses user-defined graphics.

A good amount of space can be saved by using multiple line statements. Below are the more unusual commands:

CALL CHAR (ASCII code number, hexadecimal string) Defines characters used in the program. The hexadecimal string describes the pattern to be given to the character with ASCII code stated.

CALL HCHAR (row number, column number, ASCII code, number of repetitions) Places character on screen at row and column specified, and repeats it horizontally the number of times stated. If this fourth value is omitted then the character is displayed only once. The character used is the one whose ASCII code appears in the command.

CALL VCHAR (row number, column number, ASCII code, number of repetitions) Works the same way as CALL HCHAR only repeats vertically instead of horizontally.

CALL GCHAR (row number, column number, numerical variable) Equivalent of PEEK; assigns ASCII code of character at row and column stated to numerical variable.

CALL CLEAR Clears the screen. Equivalent to CLS.

CALL SCREEN (colour code) Specifies screen colour, using colour code.

CALL COLOUR (character set number, foreground colour code, background colour code) Specifies foreground and background colours for all characters in set stated.

CALL SOUND (duration, frequency, volume) Produces sound with duration, frequency, and volume specified. Duration is in milliseconds, frequency in Hertz and volume in scale from 0 (loudest) to 30 (quietest).

CALL KEY (key unit, k,s) Equivalent of INKEY\$ or GET. Returns code if key pressed in variable k.

These are the 16 colours:

1 transparent

2 black

3 medium green

4 light green 5 dark blue

6 light blue

7 dark red

8 Cyan

9 medium red

10 light red

11 dark yellow

12 light yellow 13 dark green

14 magenta 15 grey

16 white

940 CHAR=155	1460 MA=10
950 CALL GCHAR(A,B,Q)	1470 GDSUB 2210
960 GDTD 720	1480 SC=SC+(PAT*LI*10)
970 A=A-1	1490 M\$=STR\$(SC)
980 F=-1	1500 MD=1
990 J=0	1510 MA=7
1000 P=0	1520 GOSUB 2210
1010 🗆=-1	1530 PAT=PAT+1
1020 CHAR=153	1540 NDL=9+PAT
1030 CALL GCHAR(A,B,Q)	1550 NDM=NDM+5
1040 GOTO 720	1560 FOR DELAY=1 TO 500
1050 A=A+1	1570 NEXT DELAY
1060 F=1	1580 GOTO 70
1070 J=0	1590 CALL SOUND(600,110,30,110,3 0,500,30,-8,0)
1080 P=0	1600 FOR NU=1 TO 6
1090 □=1	1610 CALL COLOR(16,7,1)
1100 CHAR=154	1620 CALL COLOR(16,11,1)
1110 CALL GCHAR(A,B,Q)	1630 NEXT NU
1120 GOTO 720	1640 LI=LI-1
1130 B=B+P	1650 GOTO 1810
1140 A=A+O 1150 CALL GCHAR(A,B,Q)	1660 FOR V=0 TO 30 STEP 2
1160 IF Q<>32 THEN 1170 ELSE 720	1670 CALL SOUND(-99,-6,V)
1170 CALL HCHAR(A, B, CHAR)	1680 NEXT V
1180 CALL HCHAR(A-F,B-J,152)	1690 LI=LI-1
1190 IF Q=129 THEN 1230	1700 GOTO 1810
1200 IF Q=128 THEN 1710	1710 FOR V=30 TO 0 STEP -1
1210 IF Q=152 THEN 1590	1720 CALL SOUND(-250,-2,V)
1220 IF (Q=136)+(Q=144)THEN 1660	1730 NEXT V
1230 CALL SOUND(99,-1,2,320,0,55	1740 FOR V=0 TO 30
0,3)	1750 CALL SOUND(-500,-2,V)
1240 SC=SC+10	1760 NEXT V 1770 FOR NUCD=3 TO 23
1250 LEAF=LEAF+1	1780 CALL HCHAR(NUCD, 2, 32, 30)
1260 Q=32	1790 NEXT NUCD
1270 M\$=STR\$(SC)	1800 GDTD 2050
1280 MD=1	1810 M\$=STR\$(LI)
1290 MA=7 1300 GDSUB 2210	1820 MD=1
1310 IF LEAF=NOL+1 THEN 1320 ELS	1830 MA=29
E 720	1840 GDSUB 2210
1320 CALL SOUND(100,440,0,540,2)	1850 IF LIK1 THEN 1940
1330 CALL SOUND(100,550,0,650,2)	1860 □=0
1340 CALL SOUND(100,440,0,540,2)	1870 P=0
1350 CALL SOUND(100,660,0,760,2)	1880 Q=32
1360 CALL SOUND(100,880,0,980,2)	1890 CALL HCHAR(A,B,CHAR)
1370 FOR NOCD=3 TO 23	1900 CALL HCHAR(A-F,B-J,152)
1380 CALL HCHAR(NOCD, 2, 32, 30)	1910 CALL KEY(0,K,S)
1390 NEXT NOCD	1920 IF S=0 THEN 1910 1930 GDTD 720
1400 MS="WELL DONE-PATCH "%STRS(1940 FOR SO=150 TO 110 STEP -1
PAT)&" COMPLETED"	1950 CALL SOUND(-100,SO,0)
1410 MD=5	1960 NEXT SD
1420 MA=2 1420 GREUP 2210	1970 FOR NUCD=3 TO 23
1430 GDSUB 2210 1440 M\$="BDNUS OF "&STR\$(PAT*LI*	1980 CALL HCHAR(NUCD, 2, 32, 30)
	1990 NEXT NUCD
10) 1450 MD=7	2050 M\$="GAME DVER"
1430 112-1	2060 MD=9

PROGRAM

2100 MD=11 2110 MA=5 2120 GDSUB 2210 2130 M\$="PRESS Y TO PLAY AGAIN" 2140 MD=16 2150 MA=5 2160 GDSUB 2210 2170 CALL KEY(0,K,S) 2180 IF S=0 THEN 2170 2190 IF K=89 THEN 15 ELSE 2200 2200 END 2210 FDR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2) 2270 FDR CDT=1 TO 8
2130 M\$="PRESS Y TO PLAY AGAIN" 2140 MD=16 2150 MA=5 2160 GOSUB 2210 2170 CALL KEY(0,K,S) 2180 IF S=0 THEN 2170 2190 IF K=89 THEN 15 ELSE 2200 2200 END 2210 FOR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL SCREEN(2)
2150 MA=5 2160 GDSUB 2210 2170 CALL KEY(0,K,S) 2180 IF S=0 THEN 2170 2190 IF K=89 THEN 15 ELSE 2200 2200 END 2210 FDR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2160 GDSUB 2210 2170 CALL KEY(0,K,S) 2180 IF S=0 THEN 2170 2190 IF K=89 THEN 15 ELSE 2200 2200 END 2210 FOR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2180 IF S=0 THEN 2170 2190 IF K=89 THEN 15 ELSE 2200 2200 END 2210 FOR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2200 END 2210 FOR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2210 FOR I=1 TO LEN(M\$) 2220 CALL HCHAR(MD,MA+I,ASC(SEG\$ (M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
(M\$,I,1))) 2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2230 NEXT I 2240 RETURN 2250 CALL CLEAR 2260 CALL SCREEN(2)
2250 CALL CLEAR 2260 CALL SCREEN(2)
1//(11 FUR 1.111=1 111 0
2280 CALL COLOR(COT,16,1)
2290 NEXT COT 2300 PRINT TAB(5); "CATERPILLAR C
RAWL"; TAB(5); "*************
2310 PRINT "MOVE THE CATERPILLAR
AROUND"::"THE MUSHROOM PATCH, WH
2320 PRINT "EATING THE LEAVES AN
D"::"DDDGING THE MUSHROOMS.":: 2330 PRINT "AVOID THE SURROUNDIN
G HEDGE,":: "AND YOUR OWN BODY.":
2340 PRINT "PRESS ANY KEY TO CON
TINUE" 2350 CALL KEY(0,K,S)
2360 IF S=0 THEN 2350 2370 RETURN



MEGASAVE

FANTASTIC SAVINGS

SPECTRUM	SPECTRUM	COMMODORE
Sabre Wulf £8.25 Psytron £6.30 Mugsy £5.95 Jack & Beanstalk £4.95 Fighter Pilot £6.25 Tornado Low Level £4.75 Hulk £8.50 Lords of Midnight £8.50 Kosmic Kanga £8.25 Jet Set Willy £4.75 Beaky £4.85 Ad Astra £4.95 Night Gunner £5.50 Match Point £6.85 Trashman £4.75 Moon Alert £4.90 Antics £5.75 Wars of the World £6.75 Les Flics £5.50	Atic Atac	Son of Blagger £6.50 Beach Head £8.50 Valhalla £11.50 Quill £11.50 Sheep in Space £6.40 Gyropod £5.50 Loco £6.50 Hulk £8.50 Arabian Knights £5.85 Solo Flight £12.00 Trash Man £6.85 Star Trooper £5.75 Cavelon £5.50 Encounter £8.75 House of Usher £5.85 Gilligan's Gold £6.90 Blue Thunder £5.95 Android II £5.85 All £7 Interceptor £5.75

FREE POST PLEASE STATE WHICH MICRO.

SEND CHEQUE/PO TO:

MEGASAVE, DEPT 2, 76 WESTBOURNE TERRACE, LONDON W2

PROGRAM FOR PROFIT WITH YOUR SPECTRUM

Software has now outstripped the areas of basic and simple machine code programs. Do you have the ideas for games but not the know how to produce the code required? Are you put off by the complexities of writing complicated routines?

Have you the problem of finding the time to write that great adventure or arcade game? Professional software houses use special programs to help them generate their product. Now there is available to you a package of commercially marketed programs with which you can write your own text adventures, graphics adventures and arcade games. Packaged together with two books on arcade and adventure programming and sent to you with a Free copy of our fact sheets "Programming for the games market", which includes many hints and tips and a Softwarehouse directory, you can now compete with the top games writers. (Programs include The Quill, Dungeon Builder, White Lightning.) Purchased separately these items would cost you £49.75. As a special offer we are packaging the items at £42.75 a saving of £7.00.

Send for your pack or send SAE for further details to

RAMTOPS, 47 BROOM LAND, LEVENSHULME, MANCHESTER M19 2TX



LES FLICS

ARCADE ADVENTURE FOR SPECTRUM 48K

£6.95

You control that Pink character with the tail in your quest for the Purple Puma, a priceless gemstone, avoid the Police cars and enter the buildings, evading Gend'armerie Kaolin (disguised as a chef) and of course Cleudeau himself.

Pick up the items as yo find them, we leave you to find out what they do! Bon Chance



452 STONEY STANTON RD. COVENTRY CV6 5DG. TEL: COVENTRY (0203) 667556



SAVE £££'s ON THESE SUPERB GAMES Hunchback Havock (BASIC) £5:95 Daddie's Hot Rod (BASIC)

Arcade action in TI-BASIC! Race with Egor thru four castles and 24 different sheets. Superb graphics and great fun.

The Black Tower (BASIC) Unlock the mysteries of the black tower and

rescue the Lady Gwen in our latest full 16K adventure. Addictive and entertaining.

Runner On Treiton (BASIC)

You are on the planet Treiton your task is Stop the battlestar before it blows up your to collect jewels. This semi-text, semi-home planet. A fast game with excellent

Drive through sheep fields, woods, over

rivers and avoid all obstacles, then pick up hitch-hikers down perilously twisting roads.

Builder/Minefield (BASIC)

Two great games in one. Builder, drive a truck, pick up bricks and build a wall but watch the obstacles. Minefield, drive a tank through a minefield while being shelled.

Battlestar Attack (EXT-BASIC)

to collect jewels. This semi-text, semi-graphics adventure requires skill and a good graphics. HCW said: 'even at level one a very addictive game!

Special Offer

Mention this ad when ordering any of the above games and you will ONLY pay £4.95. per title! Don't delay - order Now! Offer ends 31st July. Send cheque or P.O. to

LANTERN SOFTWARE,

4 Haffenden Road, Tenterden, Kent TN30 6QD or SAE for full list. Look out for our products at your TI retailer.

HOME COMPUTING WEEKLY CLASSIFIED

Lineage: 35p per word





Semi display: £7.10 per single column centimetre Ring for information on series bookings discounts.

All advertisements in this section must be prepaid. Advertisements are accepted subject to the terms and conditions printed on the advertisement rate card (available on request).



01-437 0699 EXT 341.

Send your requirements to: Debra Stupple ASP LTD. 1 Golden Square, London W1R 3AB

AUCTIONS

MICRO COMPUTER AUCTIONS

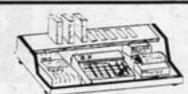
REGULAR MONTHLY AUCTIONS FOR ALL MICRO HARD & SOFTWARE.

SEND FOR ENTRY FORM OR NEXT CATALOGUE TO:—

MICRO COMPUTER AUCTIONS (HCW) NORTHINGTON HOUSE 59 GRAYS INN RD, LONDON WC1X8TL TEL: 01-242-0012 (24 HOURS)

ACCESSORIES

UNIT ONLY



ALL SINCLAIR USERS

LOOK THIS WAY **PUT AWAY ALL** THOSE UNTIDY WIRES

With this amazing new unit designed by a Spectrum user. Put on a chair, floor, on your lap. Move it all in one go. OUR LATEST NEW UNIVERSAL UNIT ACCEPTS MOST MACHINES. Send for details to:

E. R. Cameron & Son Ltd. Est. 1870 H/O 9 The Vineries, Enfield, Middx. EN1 9DQ

COMPUTER CABINETS

A range of cabinets and housing units especially designed for your home computer system. Keep it dust free, tidy and secure.

Send S.A.E. for colour brochure

MARCOL CABINETS

PO BOX 69, SOUTHAMPTON Tel: 0703 731168

LOADING PROBLEMS?

THEN LET THE ELINCA TAPE LOADER SOLVE YOUR PROBLEM NOW AVAILABLE FOR THE FOLLOWING MICRO'S ZX81 * SPECTRUM ORIC 1 * ATMOS BBC A & B ELECTRON * DRAGON Please state which STILL ONLY £14.99 inclusive Post free

OTHER PRODUCTS INCLUDE: Quality C12 micro tapes, 10 for £5.50 inclusive

LOADMOUTH — SPECTRUM AMPLIFIER £12.99 inclusive

ELINCA PRODUCTS LTD. DAISY WALK: SHEFFIELD S3 7PJ TEL: 0742 756728 PLEASE NOTE OUR NEW ADDRESS Send S.A.E. for details

VIDECOM MICROTIDY Accommodates Micro, Cassette/

- Disc Drive, Joystick, Cables etc. Inbuilt ports in sides and back for
- Tabletop design. Accepts all
- popular Micro's. Only £29.00 inc. Delivery, Packing and VAT.

SOUNDCRAFT

2, Dolforgan View, Kerry, Newtown, Powys. SY16 4DZ Tel: 0686 88 611

ICATIONS

Popping, Break Dancing. Teach yourself. SAE for details. Dance Publications, 136 Monkhill Lane, Pontefract WF8 1RT

OPPORTUNITIES

Take your share of the Computer profit-boom: Fully illustrated list of over 30 cheapest overseas supply sources of Business & Personal Computers and Softwares, only £2.00. Money refunded if not satisfied. JDC(2), PO Box 324, Hatfield Peverel, Essex.

COURSES

SPECIAL COMMODORE & VIC-20 WEEK FROM 6TH AUGUST — NOW BOOKING! £46 for 5 mornings

Adult & childrens courses as usual. Ring: Computer Workshop on 01-778 9080 32 Sydenham Rd, London SE26

CLASSIFIED - RING

CLUBS

* SPECTRUM OWNERS *

Save time and money by joining our fantastic Software Club, NOW IN OUR SECOND GREAT YEAR, with over a thousand pounds worth of tapes and NO RENTAL CHARGES. All you pay as a member is p&p. Members magazine on cassette. Find out what you're missing. Send stamped addressed envelope to:-

MICROSOFTWARE CLUB 73 Alcester Road, Moseley, Birmingham for details

FOR HIRE

To hire a computer from Spectrum 48K upwards, please phone or write to Business & Computer Services, 294a, Caledonian Rd., London N1 1BA Tel. 01 607 0157

COMMODORE 64 Software library

2 weeks hire £1. Annual membership £5. Stamp for list. Les Wilson, (C) 100 Blenheim Walk, Corby, Northants.

Oric Software Library. Two weeks hire £1. Annual Membership £5. Stamp for list. Les Wilson, 100 Blenheim Walk, Corby, Northants.

VIC-20 Software Hire _

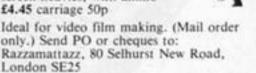
Free membership. 500 Members. 100 titles from 50p per week. SAE for your free Membership kit to: VSH (HCW), 242 Ransom Road, Mapperley, Nottingham.

HARDWARE

Replica Loud Firing Colt 45 Automatic, 23 shot As used by US Army, ideal stage prop, with ammo £5.25 carriage 50p

Replica 44 Auto Magnum, the gangsters favourite, with ammo £4.35 carriage 50p

Colt Python 357 As used by Police and screen heavies, with ammo £4.45 carriage 50p



The contents of this publication, including all articles, plans, drawings and programs and all copyright and all other intellectual property rights therein belong to Argus Specialist Publications Ltd. All rights conferred by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Ltd and any reproduction requires the prior written consent of the company. © 1984 Argus Specialist Publications Ltd

SSN0264-4991

LIBRARIES

COMMODORE 64_ GAMES LIBRARY

Over 230 titles, all originals. Hire of first two games absolutely free. Life membership only £6. Join now on money back approval. Send for details to:

Commodore 64 Games Library c/o Yorkshire Software Library, 13 Park Top, Pudsey, West Yorks.

Cheques PO's to "Yorkshire Software Library"

BBC/Dragon software library -Membership £5.00. - Tapes £1 (+23p postage). Stamp for details. E. Tucker, (H) 8 Springwood Estate Grimston Road, Sough Wootton, King's Lynn, Norfolk.

COMMODORE 64 SPECTRUM

All top titles, £5.00 life membership, 75p full 7 day hire + 23p p&p SAE details INVICTA SOFTWARE Dept HCW 42 Wardon Road Rochester Kent Cheques PO to Invicta Software

VIC-20 & VECTREX LIBRARY S.A.E. for details DUKERIES SOFTWARE 39 HIGH STREET. WARSOP NR. MANSFIELD. NOTTS

Free membership Spectrum Oric Atmos library. S.A.E for details. Hire-Soft, 113 Broomfield Road, Marsh, Huddersfield.

LOOK! Any program for any micro at 20% discount. Also the only tape exchange club specialising in today's TOP 20. (Spectrum, Commodore). Membership free. Write, stating micro, to Ham Software Library (HCW), Ham Lane, Elstead, Surrey GU8 6HQ. We've got the lot.

REPAIRS

Commodore repairs. By Commodore approved engineers. Repair prices - VIC-20 modulators £6.50. VIC-20 from £14.50, CBM 64 from £18.00, C2N from £7.00, printers, disk, etc. For more details write or tel. G.C. Bunce & Son. 36 Burlington Road, Burnham, Bucks SL1 7BQ. Tel: (06286) 61696.

ZX81 - Spectrum. We can now offer out-of-guarantee repairs by our Computer Dept. Our engineers have had over three years experience servicing Sinclair Computer products. Price including p&p. ZX81 -£11.50; 16K Ram - £9.95; Spectrum - £18.75. Send with cheque or PO. T.V. Service of Cambridge, French's Road, Cambridge CB4 3NP. Phone (0223) 311371.

Computer spares. Large range of spares for Commodore and Spectrum Computers. S.A.E. for list. Aldridge Audio, 54 Bucks Road, Douglas, Isle of Man

MICRO-SERV

The home computer repair specialist in Scotland

BBC, SPECTRUM, VIC-20 AND ALL PERIPHERALS, 3 MONTH WARRANTY ON ALL REPAIRS

UNIT 4, Denny Workspace, Denny, Scotland, FK6 6DW. Tel: Denny (0324) 823468

SERVICES

jbs records COMPUTER PROGRAMS

REAL-TIME or (Slow) HIGH-SPEED Professional Cassette Duplication and Blanks from 1 to 1,000 + . Computer printed Cassette Labels, etc. Fast Security Delivery

jbs records — a division of FILTERBOND LTD, 19 Sadlers Way, Hertford SG14 2DZ 0992-551188

DATA DUPLICATION M.G. COPIES

Burntwood, Walsall, Staffs, WS7 0ES Data duplication, quality cassettes, printing, distribution to customers with competitive prices and fast turn around. Prices and samples on request. 0543-480887 or 0543- 75375 (24 Hrs).

FOR SALE

Seikosha GP 100A Mark II printer for sale. £100 (6 months old). Telephone Billericay (02774) 58476 evenings only.

Jet Set Willy, Ant Attack, JetPac, Flight Simulation, Penetrator, the lot £10. Mick Ainclair, Sherwood, Dublin Rd, Portlaoise, Co. Laoise, Ireland.

SOFTWARE

COMPUTER SOFTWARE: **BUSINESS AND GAMES** FOR MOST COMPUTERS

Commodore 64, VIC-20, BBC, Atari, Dragon, Spectrum, MZ700, ZX81. New Releases for CBM 64, Spectrum, BBC, Atari, Dragon, Spectrum, MZ700, ZX81.

New releases for CBM 64, Spectrum, BBC. Every 2 weeks - just send S.A.E. and we send you a new list every 2 weeks.

Attai C10 data cassettes 40p each. 5 C15 data cassettes £2.40. 51/4" floppy discs D/sided - DL density. £2.30 each or 5 for £10.

Send to: M.J. Seaward, St. Olaf's Road, Stratton Nr Bude, Cornwall EX23 9AF Tel: (0288) 4179

ORIC

Account Book - Personal Finance package Picture Book - colourful spelling game for

young children £4.95. Story Book — challenging game to develop reading skills. £4.95.

Available for Oric 1 or Atmos. HCW Review * * * * For details phone 0923 53482 or write to: SOFTBACKS (Dept HCW), FREEPOST,

Watford WD1 8EP

HCW YOUR SOFTWARE SUPERMARKET.

SOFTWARE APPLICATIONS

VIC-20 back-up tape copier. Any RAM. Money back guarantee. £3.95. Griffiths, 8 Moss Close, Rugby, Warks CV22 6SD

BACK-UP TAPE COPIER SPECTRUM/DRAGON

Makes BACK-UP COPIES of your SPECTRUM programs easily with MANY unique features.

 M/Drive backs-up Basic/mc/ arrays on the microdrive STOPS programs to help the run.

 LOADS in all program parts CON-TINUOUSLY - even without pressing a key. Others require many loadings - MASSIVELY saves you time and trouble and uses no program area!

 Full instructions, very user friendly. BREAK at any time then carry on LOAD. Ideal for security back-up copies.

Spectrum copier only £4.49 or £5.50 with M/DRIVE. (Update service for old customers £1.50 plus old tape and S.A.E.) Dragon Copier £6.99. FULL MONEY BACK GUARANTEE.

LERM (DHC), 10 Brunswick Gardens, Corby, Northants.

ARROW MICRO SERVICES - Commodore 64-

ARROW TURBO-SAVER

Fed up with waiting for those programmes to load! Nell you need Turbo-Saver, easy to use and faster than 1541 Disk drive, save a fortune on tapes.

ARROW TRANSFER

Transfer your favourite games and programmes to Disk, multi part and Auto runs, full instructions Included £7,00

ARROW SAFE

Make safe back-up copys of many of your favourite programmes, works with most softwore, easy to use. £5.50

ARROW MICRO SERVICES

20 Portmeadow Walk London SE2

COPYMATE TWO **CBM 64 BACK-UP COPIER**

Outstanding features include an option to SAVE TO TAPE OR DISK Easy to use. Send £5.75 to:-

HORIZON SOFTWARE

15, Banburg Close, Corby Northants NN18 9PA Also available on disk - £2 extra

* FOOTBALL POOLS *

Works with both Australian and British Football Pools. Available for ZX81 (16K), DRAGON, TI-99/4A or TI EXTENDED BASIC (state which)

Only £5.50p (Cassette) Send SAE (20p stamp) with order to: TAO SOFTWARE, 58 Whimbrel Rd, Astley, Tyldesley, Manchester M29 7NP

-Back-up-

back-up copies of the majority of protected software

COMMODORE 64 £5.95 ORIC 1 . . . £5.95

FAST TAPE UTILITY

* commodore

COMMODORE 64 owners, at last the long wait s over - FASTBACK converts your software to TURBO LOAD -creates fast loading copies of most programs (single and multi-part) that run ndependently of the utility. For example "I Hobbit' loads in 150 seconds with FASTBACK. Supplied on tape with full instructions ONLY £9.95

TAPE TO DISK TRANSFER UTILITIES

fransfer games etc. to disk. Supplied on tape with full instructions for:-ATARI (All models) .£9.95

COMMODORE 64 **NEW IMPROVED VERSION**

tio user knowledge required. We guarantee this is the best available. £9,95 All prices include VAT, Post & Packing, Cheques, P.O. or Phone your Card Number to:

Evesham Micro Centre Bridge St, Evesham, Worcestershire Tel: 0386 49641

THE MICRO CENTRE 1756 Pershore Road, Cotteridge, Birmingham Tel: 021-458 4564

TRADE AND OVERSEAS ORDERS WELCOME

COMMODORE 64 AND VIC-20 BACK-UP COPIERS

For your BASIC, machine code, and multi-part programs of any size. Both are written in machine code and audio and visual prompts are used for easy operation. Full instructions are contained in the programs.

VIC IMITATOR

IMITATOR 64

£6

Please state which is required and make cheques/PO's payable to IAN WAITE

Send orders to: IAN WAITE, DEPT HCW 11 HAZLEBARROW ROAD SHEFFIELD S8 8AU

SPECTRUM KOPYKAT BACK-UP TAPE

Simply the best for LOADing and SAVEing your own programs. Any of your own ZX Spectrum programs can be backed-up onto a fresh tape. 100 per cent machine code. SPECTRUM KOPYKAT uses no program area so your full size programs can be copied.

Despatched by first class return of post.

Send cheque/PO for £4.95 to:

MEDSOFT PO Box 84, Basingstoke Hants RG25 2LW

COMMODORE 64

GET THE MOST FROM YOUR DATASETTE WITH **HYPERSAVE 64**

Once hypersaved, your programs (basic or machine-code) will independently reload at ten times the normal rate. Faster than the Commodore disc drive. Full instructions provided to convert your existing software. Completely self-contained - nothing to pre-load. Cassette£7.50

64 BACK-UP. An advanced tape to tape back-up copier. Versatile and user friendly. Cassette £3.50

Fast despatch guaranteed. Cheque/PO or S.A.E. to:

Dosoft, 2 Oakmoor Avenue, Blackpool FY3 0EE

SOFTWARE EDUCATIONAL

Atari 400/800 owners learn French or German and save money! £10 off Atari language course. Send only £14.95 plus 2.95 p&p. All credit cards accepted. Callers welcome. Open 7 days a week. Warehouse 10, Dept HCW, 210 Tower Bridge Road, London SE1 or phone 01-407 8793

SOFTWARE GAMES

SOPHISTICATED GAMES for VIC 20

VIC CRICKET Realistic game of skill and luck with all the major rules of cricket correctly interpreted. Full scorecard, printer and game save facilities. Needs 16K expansion.

£5.99

LEAGUE SOCCER Leage championship game for two to 22 teams/players. Automatic fixtures, full action commentaries, match facts. League tables, results check, postponed games, etc. Non league matches also playable the VIC will even make the cup draw. Printer and game save. Needs 16K expansion. £5.99*

WHODUNNIT? Twelve guests have gathered for drinks at Murder Manor. However one of them has more than drinks on his mind. Thrilling detective game for one to six players, with genuinely different murder every time. You can even rename the suspects! Needs 8K expansion. £4.99*

TOP OF THE POPS Money making game about the music business. Make your own records and see them climb the chart. Printer and game save facilities. Needs 8K expansion.

£4.99

VIC PARTY 4 contains MASTER-WORD. A DAY AT THE RACES, GAME X (Strip Poker), and CON-SEQUENCES. Four games ranging from the serious to the ridiculous. All good fun — nothing offensive. Needs at least 3K expansion. £5.99*

Sophisticated Games, Dept HCW, 27 Queens Road, Keynsham, Avon BS18 2NQ Tel: 02756 3427

Write for details of our full range.

*P&P free (UK) only. All games sold subject to our conditions of sale, which are available on request.

TI-99/4A SOFTWARE

Any three fantastic games for only £5. 39 titles to choose from. For full list S.A.E. to:

BINBROOK SOFTWARE, 88 Cotterdale, Sutton Park, Hull HU7 4AE

SOFTWARE from £1.99

VIC-20, Commodore 64, Spectrum, post free s.a.e. for details to

DUKERIES SOFTWARE 39 HIGH STREET, WARSOP NR. MANSFIELD, NOTTS

Computer Software and Accessories, send 2 x 16p stamps for free lists stating which computer to: Electronic Facilities, 3 High Street, Sandy, Beds. SG19 1AG All software available. Telephone 01 487 4839 or write to D & T Electronics, 45 Marylebone High Street, London W1M 3AD. State which computer. Mail order only.

TEXAS

Intrigue Software	
Lionel & the Ladders (Ex. Basic)	£7.95
Beneath the Stars (Basic)	£5.95
Northern Lights	
Tri-Light (Basic)	£6.75
(Combined Computer Board Ga	me)
Gold Miner (Basic)	£5.40
Joystick Adaptor for the TI	£8.50
Starfighter Joystick	£13.95
Slik Stik Joystick	£9.95
All prices include postage and For full lists please send S.A	packing. .E. to:-
LOADE ENTERPRISES, c/o	

(HCW), 35 Upper Bar, Newport, Shropshire TF10 7EH. Tel No. (0952) 813667 or 814292 MAIL ORDER ONLY

TEXAS TI-99/4A

Fantastic new games for your Texas TI-99/4A computer. All the games are in TI Basic, have full graphics and a hall of fame. All prices include P&P with superfast delivery.

Cassette 1. Boozy Bill/Diggit. £4.50
Cassette 2. Gallaxios/Alien Madness. £4.50
Cassette 3. Oil Panic/Jet Plane £4.50.
Make all cheques, POs payable to MRJ.

MRJ, 64 Reva Road, Broadgreen, Liverpool 14, L14 6UB

BE A WINNER

Tired of 'blasting' games? Bored with pointless adventure games? Then use Treasure Hunt Tool Kit to win Thousands of £££'s. HCW 4 star rating! £4.95 for 16K or 48K Spectrum (state which).

G.W. COMPONENTS 50 Oaktree Lane, Mansfield, Notts.

JULY SALE

Rabbit titles	4.90	Les Flics	5.15
Antics	5.50	Foghter Pilot	5.75
Savage Pond	6.80	Snooker	6.80
Dragon Chess	7.45	Aviator	11.00
Zaxxon (Atari)	11.45	Solo Flight	11.45
send cheque/	p.o. sta	ating title & ma	chine
MAIL ORDER	SOFT	WARE, 9 KN	OWLE
LANE, WYK	E, BR	ADFORD BD1	2 9BE

UTILITIES

QL UTILITIES

4 programs on microdrive for Sinclair Ql to prevent DIRectory overflowing the screen, provide single key LOADing or DELETion of files, repeat FORMATing of cartridges and back-up COPYing of whole or part of the cartridge. £10. From:

WD Software, Hill Top, St Mary, Jersey, C.I. Tel (0534) 81392

WANTED

Second hand Spectrum Games Wanted — Originals Only (with inserts, etc). Disliked/Overzapped/Disappointing Games — We'll Buy Them! Send list for offer by return! G. Inglis, 37 Cockburn Street, Edinburgh EH1 1BP

HCW YOUR SOFTWARE SUPERMARKET.

NATIONWIDE SHOPS & DEALERS

BEDFORDSHIRE

SOFTWARE CENTRE

Computers, Software and accessories.

The Educational Software Specialists

Large S.A.E. for lists.

52A Bromham Road, Bedford. Tel: Bedford 44733

CLEVELAND

DISCOUNT SOFTWARE

for CBM 64, VIC-20, SPECTRUM, BBC & ORIC I. NO CHARGE for P&P. S.A.E. for lists.

STOCKTON SOFTWARE 10 South Rd, Norton-on-Tees, Stockton, Cleveland.

READ OUR
DEALER
DIRECTORY AND
FIND OUT THE
LOCATION OF
YOUR NEAREST
COMPUTER
SPECIALIST.

SOMERSET

RAINBOW COMPUTER CENTRE

Massive range of software in stock for BBC, COM 64, VIC-20, SPECTRUM, DRAGON, ELECTRON, ZX81.

Huge stocks of peripherals
(Joysticks, Interfaces, Cassette units,
Paddles, Introduction series,
Reference Guides etc).
Open Monday-Sunday 9am-8pm.
Any visa accepted

For the largest selection of hardware and software in the area contact: VICTORIA ROAD, YEOVIL, SOMERSET TEL: 0935 26678



CLASSIFIED - RING 01-437 0699

It's easy to complain about advertisements. But which ones?

Every week millions of advertisements appear in print, on posters or in the cinema.

Most of them comply with the rules contained in the British Code of Advertising Practice.

But some of them break the rules and warrant your complaint's.

If you're not sure about which ones they are, however, drop us a line and we'll send you an abridged copy of the Advertising Code.

Then, if an advertisement bothers you, you'll be justified in bothering us.

The Advertising Standards Authority.

If an advertisement is wrong, we're here to put it right.

ASA Ltd, Dept 2 Brook House, Torrington Place, London WC1E 7HN

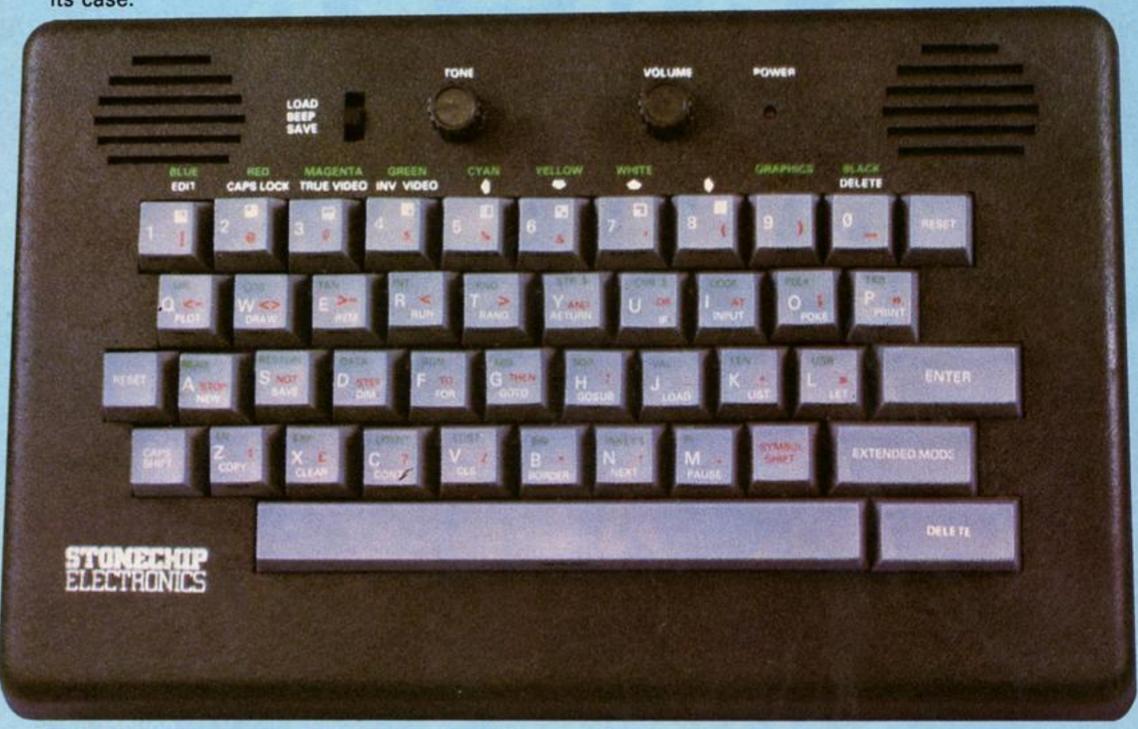
This space is donated in the interests of high standards of advertising.

The Key To Success!

Now, with the new Stonechip Spectrum Keyboard, the user has no worry of damaging the Spectrum itself as improved designing enables it to fit the case perfectly.

Assembling the case is simple as it consists of two halves, the top half containing the keyboard, with a small printed circuit board, attached by ribbon cable, plugging into the rear of the Spectrum. The lower half fits precisely around the Spectrum, thus preventing any risk of damaging through movement.

Your Sinclair guarantee need not be invalidated since the Spectrum does not require removal from its case.



THE MAIN FEATURES OF THE KEYBOARD ARE:

- No modifications to Spectrum necessary as it connects via rear port.
- □ Full-length space bar.
- □ Built-in 'Echo' amplifier and tape interface.
- ☐ RESET keys remove the need to disconnect power supply lead.
- ☐ Single key 'DELETE'.
- □ Single key 'Extended Mode' selection (ie one key replaces the CAPS SHIFT and SYMBOL SHIFT function).
- ☐ Fully compatible with Interface 1 and most peripherals.

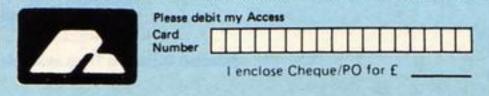
Stonechip Electronics, Unit 9, The Brook Industrial Estate, Deadbrook Lane, Aldershot, Hants. Telephone: (0252) 333361

Extender unit available to use with Interface 2 and Kempston Joystick Interface. £2.50.

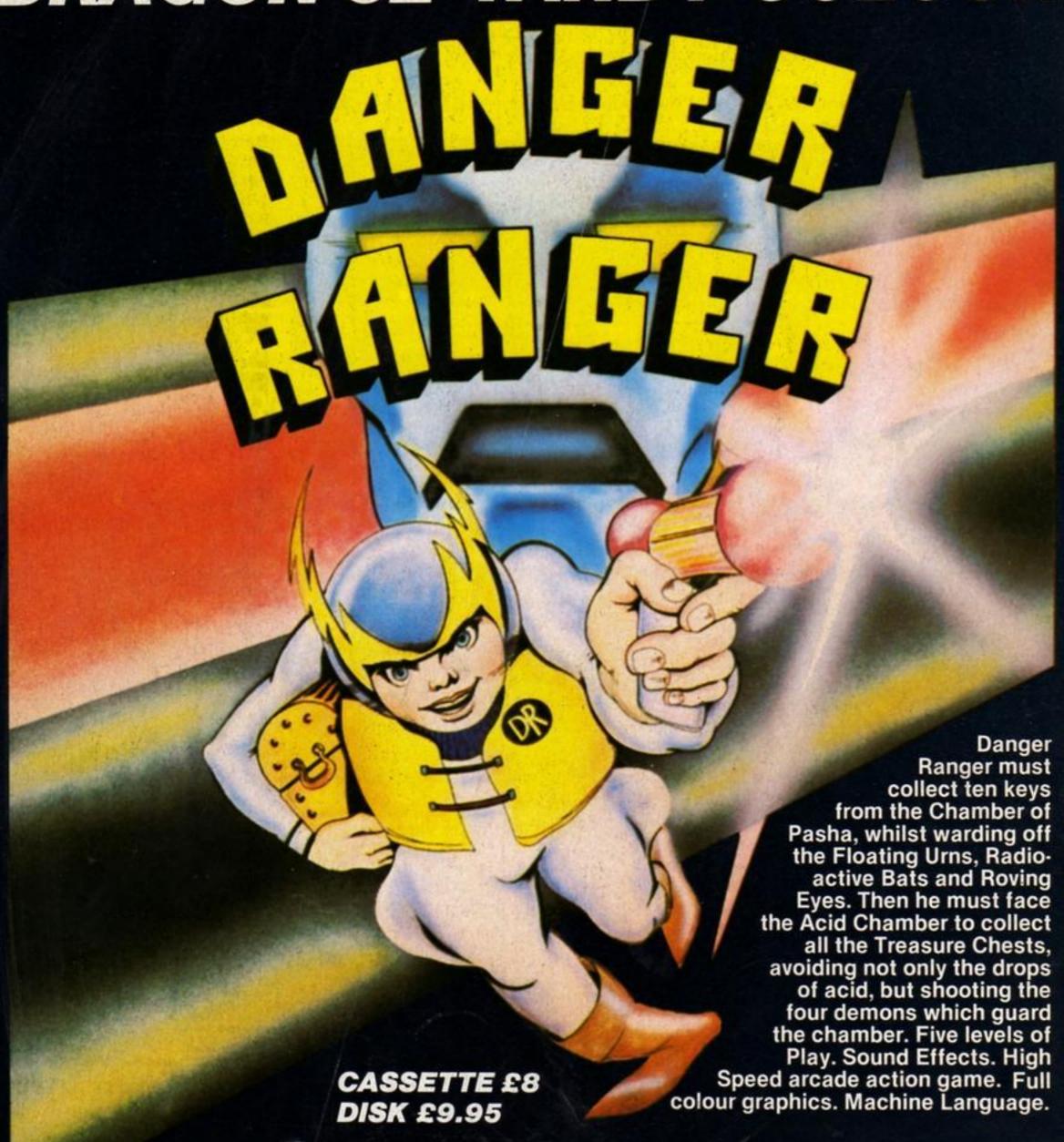
£59.95

DEALER ENQUIRIES WELCOME Delivery approximately 28 days

١	To: Stonechip Electronics, Unit 9, The Brook Industrial Estate, Deadbrook Lane, Aldershot, Hants. Telephone: (0252) 333361
1	Please forward me the following products:
1	
ļ	
1	All prices are inclusive of VAT, Post & Packing for U.K. deliveries (overseas add 15%)
١	Name
١	Address



Available for COMMODORE 64 ATARI 16K DRAGON 32 TANDY COLOUR



Mail Order Sales from Microdeal Mail Order 41 Truro Rd, St. Austell Cornwall PL25 5JE

Phone 0726 3456



Dealers Contact

MICRODEAL DISTRIBUTION

0726-3456

or WEBSTERS SOFTWARE
0483 62222

MICRODEAL

Selected Microdeal Titles available from computer dealers nationwide or from larger branches of

